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A study of the  
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structure and  
expenses of the  
Montana University

A STUDY OF THE  
ADMINISTRATIVE STRUCTURE  
AND EXPENSES OF THE  
MONTANA UNIVERSITY SYSTEM

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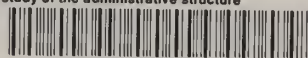
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**A STUDY OF THE  
ADMINISTRATIVE STRUCTURE  
AND EXPENSES OF THE  
MONTANA UNIVERSITY SYSTEM**


A Report to the  
Office of the Commissioner of Higher Education

Revised for presentation to  
The Board Of Regents

March 22, 1993

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# TABLE OF CONTENTS

Acknowledgements and Committee Members	i
Executive Summary	iii

<u>SECTION</u>		<u>PAGE</u>
1.0	Background and Introduction	1
1.1	Definition of "Administrative" Expenses	2
1.2	Purpose of the Study: What it is and What it is not	4
2.0	Overall Perspective of the Montana University System	7
2.1	National Comparisons Related to Montana Higher Education	7
2.2	Peer Comparisons	9
2.3	Technical Centers	26
2.4	Summary	29
3.0	The Nature of the System and the Role of the Board of Regents	30
3.1	Historical Perspective	30
3.2	Legal Status of the Board of Regents	32
3.3	Required System Functions for the Board of Regents	33
3.4	Restructuring Issues	35
4.0	Recommendations Not Related to Specific Budget Programs	37
4.1	Functional Consolidation for Service Delivery	37
4.2	Refocusing the Office of the Commissioner	44
4.3	RERS and Common Systems Development	48
4.4	Grant and Contract Research	50
4.5	Administrative Services for Selected Technical Centers	50
4.6	Telecommunications	54
5.0	Recommendations Related to Specific Budget Programs	61
5.1	Academic Support	64
5.2	Student Services	66
5.3	Institutional Support	70
5.4	Plant Operation and Maintenance	72
5.5	Summary of Institutional Site Visits	75

## APPENDICES

A	Interview Guide
B	MUS Survey of Peer Tuition and Fees
C	Example of Start Up Costs for Distance Learning





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In particular, the study team would like to thank Ms. Kathleen Hicks of the Office of the Commissioner who served as Project Officer for the study. Her ability and willingness to provide all requested information and to assist with scheduling is greatly appreciated.

Not the least, we thank the members of the project committee, whose names appear on the following page, for their willingness to provide information and critique our work leading to this final report.

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## EXECUTIVE SUMMARY

This study is a review of the administrative structure of the Montana University System (MUS) and an analysis of the growth and costs of administration. As its title indicates, it includes a review of the structure of the system as well as the specific units and activities which create or result in costs. In this area, the study examines the interrelationship of the units and overall issues which are within its scope.

The recommendations contained in this study are those which the study team feels will improve the operation of the system (including areas where administration needs to be strengthened), improve efficiency, explore the potential for use of telecommunications in administrative operations, and which will result in long or short term administrative cost reductions. In view of the current budget problems facing the State of Montana and the university system, it is important to point out that the study does not attempt to do a number of things, including:

- address the merits of specific budget proposals;
- solve the budget problems facing the MUS;
- deal with academic program termination or institutional closure;
- review salary levels of administrative personnel; or
- address access or tuition and fee policies.

In addition, the study report does not address items or issues outside its scope even though they might have a potential for cost reductions. That is a matter more appropriately addressed in other studies.

**Administrative Structure:**

Although Montana's constitution and statutes envision the MUS as a single university, the units within the "system" have traditionally functioned more like a loose confederation. Each institution has evolved relatively independently over time. This historical independence has contributed to a lack of common administrative systems and a poorly defined role for the Office of the Commissioner. Until the issue of control and governance is resolved, the ability to find true and long term solutions to administrative issues will be difficult and parochial interests will likely continue to affect the development of the system. We endorse the recommendation of the Commissioner that the Board direct the Office of the Commissioner to prepare a plan for significant structural change that "will enhance delivery of post-secondary educational services in Montana" to be presented to the Board by October 1, 1993. In this context, we have suggested an approach which focuses on functional consolidation of services and a sharpening of the role of the Office of the Commissioner.

**Costs of Administration:**

In regard to the costs of administration, we believe that our findings dispel the notion that these costs have grown disproportionately over the past several years. In fact, based on our analysis, administrative costs expressed in constant 1987 dollars have increased only slightly (less than one percent) while student FTE enrollment has grown approximately five percent. In addition to reviewing changes over time, we examined the relationship of the MUS to national and peer institution data. Although making some suggestions for improving the peer data, we found that expenditures for administrative budget programs were below national or peer averages. The only exception was the Student Services program where the higher



than average expenditures (in the four year units) were due to support for intercollegiate athletics.

It is our conclusion that the size and costs of administration in the MUS have not changed disproportionately to enrollment growth and are below most peer institutions and national averages. The breadth and depth of our analysis make this conclusion compelling.

As part of our study, we visited every institution in the MUS and met with more than 125 individuals to learn about programs and the status of operations and workload. In addition to our interviews, we sought to observe the general operating environment and conditions on each campus. Site visits were conducted in December and January, prior to completing our review of the peer data. Thus, visits were conducted without prejudice regarding the status of the size and/or costs of administration in MUS institutions. Our findings from the site visits confirmed subsequent peer review conclusions that, overall, MUS units are conservatively staffed. In our opinion, there is very little "fat" to trim. Therefore, although our analyses have identified some positions which may not be needed, there is no gold mine of administrative savings which can be tapped without significant impact on services.

### **Opportunities for Potential Savings:**

In the report, we discuss where we believe the greatest potential savings opportunities exist. These include:

- Consolidation of administrative functions at designated institutions through "affiliation agreements" to reduce costs and take advantage of economies of scale and implement common administrative systems at those sites or, in certain instances, through the Office of the Commissioner.

- Reducing state support for intercollegiate athletics to a level more commensurate with the peer institutions. Although politically sensitive, these reductions will have the least impact on the level and quality of instruction that can be offered.
- Eliminating college and university recruiting and marketing efforts while still providing necessary information to prospective students. Current efforts contradict existing state fiscal circumstances and policies designed to control enrollment.
- Four year institutions located in the same city as technical centers providing key administrative services thereby reducing administrative staffing requirements at the centers without increasing staff at the four year institutions. Although it will be argued that the workload associated with the 300 to 600 students per center cannot be accommodated, we believe the colleges and university can, in the long term, absorb these functions with existing resources.
- Taking advantage of technology in automation and telecommunications to reduce costs of both administration and instruction. In this section we offer several specific recommendations designed to assist the state and the MUS to make greater use of the potential offered by telecommunications.
- Developing a more fair and equitable means of distributing grant and contract research overhead to recognize added workload due to growth in research volume.
- Eliminating the RERS system while assuring accurate position reporting.
- Carefully examining all positions which have been established for a singular, time-limited purpose which has been accomplished in whole or in part, and considering those positions for termination prior to making expenditure reductions which will reduce services to students.
- Reviewing the relatively few instances of functional duplication and/or overlap which were identified which offer opportunities for efficiency improvements and potential staff reduction.

In our opinion, implementation of these recommendations will produce annual savings of between \$3.5 and \$4 million.

**Summary:**

Overall, we have found the Montana University System to be one which has the opportunity to improve its long term functioning in an environment of limited resources by developing common systems, sharing resources, making greater use of telecommunications and taking advantage of its unique opportunity to incorporate technical education into the system. At the same time, while there are short term savings which can be made as noted below, the administrative costs of the MUS are reasonable, have shown little constant dollar growth over the last several years and compare favorably to peer institution and national averages. As we note above, we have found no "gold mine" of administrative savings which can be tapped without reductions in services.





# STUDY OF THE ADMINISTRATIVE STRUCTURE AND EXPENSES OF HIGHER EDUCATION IN MONTANA

## 1.0 Background and Introduction:

The State of Montana provides a broad range of postsecondary education opportunities through its system of higher education. The Montana University System (MUS) consists of two doctoral granting universities, each enrolling approximately 10,000 students, three smaller regional colleges and a specialized college of mining and technology. In addition, the system contains five technical centers, and coordinates three state-supported community colleges. The system is governed by a single Board of Regents whose chief executive officer is the Commissioner of Higher Education. The Office of the Commissioner serves both as the central office staff to the Board and as a provider of centralized services to the units of the system.

The Montana University System began the 1991-93 biennium with a 14 percent increase in the budget. The increase in state support was largely in response to the severe shortage of funding that the Montana University System experienced in previous years. Unfortunately, in January the Montana University System budget was reduced by six percent, and by July another 4 percent was cut.

Currently, the state is facing a deficit of approximately \$200 million. Thus, at a time when educational institutions are seeking increased funding to improve program quality, the state's worsening fiscal situation is making it nearly impossible to allocate more dollars to education.

Before considering significant increases in tuition or reductions in direct services, the legislature focused on identifying the potential for decreasing costs and improving efficiency in administrative services. In this context it is incumbent upon all parties concerned to make sure that available funds are spent in the most

efficient and effective way possible. Subsequently, the Legislature directed that a study to identify potential savings be conducted. A project committee comprised of representatives from the Legislature, the Office of the Commissioner, and the colleges and universities was appointed to oversee the study. The committee requested proposals from qualified firms to conduct a study of the administrative structure and expenses of all units of the Montana University System and the Office of the Commissioner of Higher Education. After a review of the proposals received in response to the request, the committee selected MGT of America, Inc. to undertake the study.

Shortly after beginning the study, the budgetary crisis facing the state and the system of higher education was manifested in the recommendations of both outgoing Governor Stephens and incoming Governor Racicot. Both called for extensive reductions in administrative costs and for a varying degree of restructuring of the Office of the Commissioner and the entire university system. During the course of the study, the House Appropriations Committee apportioned budget reductions among state services, including \$24 million to education, of which the bulk was to be borne by higher education. In view of the nature and timing of the study and the environment in which it is being conducted, we recognize that there may well be differences of understanding of its scope, nature and intent. The following statements attempt to clarify these points so that the reader has a clear understanding of the nature and purpose of the study.

### **1.1 Definition of "Administrative" expenses for purposes of this study:**

The project request for proposals called for a "study of the administrative structure and expenses of all units of the Montana University System and the Office of the Commissioner of Higher Education". The term "administrative" can have a variety of meanings. Narrowly defined (as by Webster), it can mean "one who

manages or directs". This is the context used to describe the employment category "Executive, Administrative and Managerial" in the federal Integrated Postsecondary Education Data System (IPEDS) Glossary. In Montana, it has been used to describe the MUS employment category "contract professional" as compared to faculty and classified staff. It was in this context that Governor Racicot noted that "for every four contract faculty members there is one contract administrator" in the university system.

In higher education budgeting and accounting, the Institutional Support program is used to group the units most commonly thought of as "administrative". These include the office of the president, the business office, the chief academic officer, personnel office, etc. The Student Services program also contains a large number of administrative operations including admissions, financial aid, registration, etc. Two other programs, Academic Support and Operation and Maintenance of Plant contain some units commonly thought of as administrative in nature.

In the context of this study, we believe the intention is to examine those units which support the delivery of instruction, research and public service and which are not primarily involved in direct service delivery to students. In several cases, that line is difficult to determine, but in our judgement would exclude libraries, museums, media services, and many of the operational activities of physical plant maintenance. We have included all student service operations other than self funding auxiliary enterprises even though some provide direct services to students.

To summarize, the following is the definition of "administrative" units for the purposes of this study:

*The operating units funded from current unrestricted funds in the following budget categories:*

- *Institutional Support, including Executive Management, Fiscal Operations, General Administration and Logistical Services (including human relations, purchasing, printing shops, etc.), Administrative Computing, and Public Relations/Development and similar operations included in this general category.*
- *Student Services, including Student Services Administration, Counseling and Guidance, Financial Aid Administration, Admissions and Records and similar operations included in this general category.*
- *Academic Support units involved with administrative functions such as Academic Administration, Academic Personnel Management, Research Administration, Media Services and Academic Computing Support.*
- *Administrative units in the Operation and Maintenance of Plant category.*

## 1.2 Purpose of the Study: What it is and What it is not:

The purpose of the study was to conduct a multi-faceted analysis of the administrative structure and expenses of the system including the six four year institutions, the five vocational technical centers and the three community colleges and the Office of the Commissioner. The term "multi-faceted" refers to the fact that a variety of analyses have been conducted as part of the study. These analyses included:

- Organizational Analysis
- Structural Analysis
- Functional Analysis
- Budget Analysis
- Comparative Analysis
- Review of Peer Analyses



These analyses involved the collection and review of basic information concerning each MUS institution, commonly referred to as "units", including:

- Statements of Goals and Objectives
- Summaries of Services Provided
- Administrative Policies and Procedures
- Organizational Structures of the Units and Major Administrative Divisions
- Budgets and Position Descriptions
- Staffing Patterns over the past Five Years
- Historical Expenditure Patterns

These and other relevant data were reviewed prior to initiating site visits to each institution and the Office of the Commissioner. Over 20 staff days were spent interviewing presidents, vice presidents, division directors and heads of major administrative units using an interview guide prepared specifically for this study. Overall, more than 125 interviews were conducted. The interviews dealt with the role, functions, responsibilities, sources of workload and interrelations with other organizational units.

The on-site work allowed us to assess growth (or decline) of workload and positions, assess the structural patterns within and among institutions, identify systems or requirements which appear to be unnecessary, and identify opportunities for cost savings. In addition, we conducted an examination of the opportunities for use of telecommunication technology in administration and service delivery. The analytic design of the study was specifically tailored for the Montana University System and was sensitive to the context and time frame in which it was conducted.

As the title of the study indicates, it included a review of the structure of the system as well as the specific units and activities which create or result in costs. In this area, the study examines the interrelationship of the units and overall issues which are within the scope of the study focus on the size and cost of administration.

The recommendations contained in this study are those which the study team feels will improve the operation of the system (including areas where administration needs to be strengthened), improve efficiency, explore the potential for use of telecommunications in administrative operations, and which will result in long or short term administrative cost reductions. The study does not attempt to do a number of things, including:

- address the merits of specific budget proposals;
- solve the budget problems facing the MUS;
- deal with academic program termination or institutional closure;
- review salary levels of administrative personnel; or
- address access or tuition and fee policies.

In addition, the study report does not address items or issues outside its scope even though they might have a potential for cost reductions. That is a matter more appropriately addressed in other studies.

## **2.0 Overall perspective of the Montana University System:**

Before proceeding to the specific reviews of issues related to administrative structure and costs and of the findings resulting from the site visits, we feel it would be helpful to briefly place the Montana University System and its operations into perspective. To this end, we have reviewed available national comparative data on overall higher education statistics as well as information on personnel count by employment category. In addition, we have conducted a review of the information derived from the peer institution analysis conducted by the Office of the Commissioner.

### **2.1 National Comparisons Related to Montana Higher Education:**

The following are a number of general findings based on comparing Montana's four year institutions of higher education to the nation as a whole.

- A Large Number of Public Four Year Institutions Per Capita.

A review of national data derived from the 1993 issue of State Higher Education Profiles (SHEP) published by the U. S. Department of Education indicates that Montana has one of the largest number of four year public institutions per capita in the country. Of the states in which the "peer institutions" are located, only North and South Dakota have a greater per capita availability of four year public schools.

- Montana enrollment per capita at about the national average.

The SHEP data indicate that Montana's enrollment in public four year institutions is at about national levels. Of the states from which the "peer

institutions" are drawn, most have higher participation levels, due largely to more community colleges. Only Idaho and South Dakota are below Montana's average position in this category.

- Lower than average expenditures per student.

According to SHEP, the total per student expenditures for the two universities (the UM and MSU) is 29 percent below that of similarly categorized institutions, while those of Montana's four smaller institutions are six percent below the average.

- Higher than average percentage of expenditures for instruction.

The data indicate that Montana ranks tenth in the nation in the percentage of its higher education budget used for instruction. Of the "peer" states, only Idaho (sixth) spends a higher percentage on student instruction.

- Below average expenditures per student in the Academic Support and Institutional Support programs but above average expenditures in Student Services.

Montana's two universities (and to a lesser extent the four year colleges) spend a below average amount on programs associated with administrative costs and an above average amount on student services. A major reason for the above average student services expenditures appears to be the state subsidies for intercollegiate athletics which are booked in this program.



## 2.2 Peer Comparisons:

As a part of the study, we reviewed the "peer institution" comparisons for fiscal years 1989 and 1991 prepared by the office of the Commissioner. This review was conducted for two main reasons. First, the "peer" data provide an insight into the relative status of administrative expenses in the MUS compared to institutions which have been deemed to be similar. Second, the use of "peer" comparisons figures heavily in policies of the MUS and a review of the process provides information on how well the Office of the Commissioner is able to make accurate comparisons. The purpose of our review was not to evaluate whether the peer institutions are appropriate (although in our opinion such a review would be in order) nor was it to conduct a new analysis.

The following institutions had previously been selected to serve as peers for the Montana four year institutions:

### Montana Institutions

Montana State University  
University of Montana

### Peer Institutions

Northern Arizona University  
North Dakota State University  
New Mexico State University  
University of Idaho  
University of Nevada  
University of North Dakota  
University of Wyoming  
Utah State University

<u>Montana Institutions</u>	<u>Peer Institutions</u>
Montana Tech	Colorado School of Mines New Mexico Institute of Mining South Dakota School of Mines
Eastern Montana College	Eastern Washington University Eastern New Mexico University Minot State University Northern State University Southern Oregon State College University of Southern Colorado
Northern Montana College	Adams State College Lewis Clark State College Oregon Institute of Technology Western New Mexico
Western Montana College	Dakota State College Dickinson State College Mayville State College Western New Mexico Valley City College

As indicated above, the purpose of our review was to evaluate the accuracy of the calculations and to identify the position of the Montana units relative to the peers. As the tables on the following pages indicate, the peer comparisons of the programs under review indicate a pattern similar to that of the nation as a whole as discussed in the preceding section. Montana schools spend less per student in the Academic and Institutional Support programs and more per student in Student Services. The totals for the three programs (and four when Operation and Maintenance of Plant is added) indicate lower expenditures per student in Montana than the average of the peers.

# EXHIBIT 2-1

## COMPARISON OF FY1991 EXPENDITURES

1. AS A PERCENTAGE OF TOTAL EXPENDITURES												
PROGRAM	MSU	UM	USU	NAU	UND	NDSU	NMSU	UNR	UWYO	UIDAHO	PEER AVERAGE	
Instruction	54.0%	51.8%	50.4%	47.9%	45.4%	54.0%	53.3%	50.6%	48.8%	53.0%	50.4%	50.4%
Research	1.2%	1.3%	0.0%	2.8%	0.3%	0.5%	0.5%	2.2%	4.0%	7.4%	2.2%	2.2%
Public Service	0.0%	0.5%	1.5%	1.3%	0.0%	0.3%	1.5%	0.0%	2.7%	0.0%	0.9%	0.9%
Academic Support	11.9%	13.6%	13.5%	9.8%	17.6%	11.3%	10.2%	13.6%	10.1%	10.9%	12.1%	12.1%
Student Services	9.4%	8.5%	5.8%	6.4%	5.1%	4.1%	5.7%	5.2%	7.5%	5.5%	5.7%	5.7%
Institutional Support	8.6%	9.1%	8.8%	15.3%	12.2%	12.4%	12.0%	11.7%	8.6%	10.5%	11.4%	11.4%
Physical Plant	12.3%	12.6%	14.0%	12.0%	17.8%	17.3%	13.6%	15.1%	10.9%	11.2%	14.0%	14.0%
Fee Waivers	2.5%	2.7%	4.8%	4.6%	1.5%	0.0%	0.0%	1.7%	7.4%	1.5%	2.7%	2.7%
Transfers	0.0%	0.0%	1.2%	0.0%	0.0%	0.0%	3.2%	0.0%	0.0%	0.0%	0.6%	0.6%
Total Expenditures	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2. SUPPORT EXPENDITURES ON A PER STUDENT BASIS												
PROGRAM	MSU	UM	USU	NAU	UND	NDSU	NMSU	UNR	UWYO	UIDAHO	PEER AVERAGE	
Academic Support	\$615	\$647	\$887	\$606	\$930	\$657	\$662	\$1,041	\$956	\$767	\$813	\$813
Student Services	\$483	\$403	\$378	\$392	\$271	\$238	\$374	\$397	\$709	\$387	\$393	\$393
Institutional Support	\$444	\$436	\$575	\$939	\$647	\$722	\$784	\$895	\$815	\$736	\$764	\$764
Physical Plant	\$637	\$601	\$920	\$738	\$943	\$1,006	\$885	\$1,159	\$1,038	\$787	\$935	\$935
Three Support Programs	\$1,543	\$1,486	\$1,839	\$1,938	\$1,847	\$1,617	\$1,820	\$2,333	\$2,480	\$1,890	\$1,971	\$1,971
Support plus Plant	\$2,180	\$2,087	\$2,759	\$2,676	\$2,790	\$2,624	\$2,705	\$3,492	\$3,518	\$2,678	\$2,905	\$2,905



## EXHIBIT 2-2

### COMPARISON OF FY991 EXPENDITURES

1. AS A PERCENTAGE OF TOTAL EXPENDITURES									
PROGRAM	EMC	MINOT STATE	S ORE. ST COLL	U OF S COLO.	NORTHRN STATE	E WASH UNIV	E NEW MEX U	PEER AVERAGE	
Instruction	46.6%	60.1%	51.1%	49.6%	60.8%	48.5%	43.9%	52.3%	
Research	0.0%	0.1%	0.0%	0.5%	0.2%	0.6%	0.2%	0.3%	
Public Service	2.0%	1.4%	4.0%	2.1%	0.0%	0.8%	11.0%	3.2%	
Academic Support	12.0%	9.8%	13.7%	11.3%	10.8%	12.8%	8.4%	11.1%	
Student Services	10.9%	4.1%	5.9%	9.5%	6.0%	6.8%	9.1%	6.9%	
Institutional Support	12.0%	7.7%	14.1%	14.0%	12.7%	12.8%	14.4%	12.6%	
Physical Plant	14.0%	16.2%	11.2%	12.5%	8.5%	14.5%	11.7%	12.4%	
Fee Waivers	2.5%	0.5%	0.0%	0.6%	1.0%	3.3%	1.3%	1.1%	
Total Expenditures	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
2. SUPPORT EXPENDITURES PER STUDENT									
PROGRAM	EMC	MINOT STATE	S ORE. ST COLL	U OF S COLO.	NORTHRN STATE	E WASH UNIV	E NEW MEX U	PEER AVERAGE	
Academic Support	\$544	\$528	\$833	\$539	\$381	\$931	\$505	\$609	
Student Services	\$492	\$223	\$358	\$456	\$210	\$494	\$545	\$397	
Institutional Support	\$543	\$418	\$853	\$669	\$448	\$927	\$865	\$675	
Physical Plant	\$633	\$874	\$677	\$597	\$299	\$1,055	\$705	\$692	
Three Support Programs	\$1,578	\$1,170	\$2,044	\$1,664	\$1,039	\$2,352	\$1,915	\$1,680	
Support plus Plant	\$2,212	\$2,043	\$2,722	\$2,261	\$1,338	\$3,407	\$2,620	\$2,372	

# EXHIBIT 2-3

## COMPARISON OF FY1991 EXPENDITURES

1. AS A PERCENTAGE OF TOTAL EXPENDITURES						
PROGRAM	NMC	ADAMS STATE	W NEW MEXICO	LEWIS CLARK ST COLLEGE	OREGON INST TECH	PEER AVERAGE
Instruction	51.4%	48.1%	46.2%	55.0%	53.8%	50.8%
Research	0.0%	0.0%	0.0%	0.5%	0.4%	0.2%
Public Service	0.0%	0.0%	0.6%	0.0%	0.0%	0.1%
Academic Support	8.6%	12.7%	8.9%	9.5%	12.0%	10.7%
Student Services	10.3%	7.8%	12.2%	10.1%	7.1%	9.3%
Institutional Support	12.1%	16.5%	16.5%	12.7%	14.9%	15.1%
Physical Plant	14.3%	14.4%	15.1%	11.1%	11.8%	13.1%
Fee Waivers	3.3%	0.5%	0.5%	1.1%	0.0%	0.5%
Total Expenditures	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2. SUPPORT EXPENDITURES PER STUDENT						
PROGRAM	NMC	ADAMS STATE	W NEW MEXICO	LEWIS CLARK ST COLLEGE	OREGON INST TECH	PEER AVERAGE
Academic Support	\$455	\$573	\$552	\$488	\$867	\$620
Student Services	\$550	\$354	\$762	\$521	\$512	\$537
Institutional Support	\$643	\$746	\$1,025	\$656	\$1,080	\$877
Physical Plant	\$762	\$653	\$940	\$574	\$854	\$755
Three Support Programs	\$1,647	\$1,674	\$2,339	\$1,665	\$2,458	\$2,034
Support plus Plant	\$2,409	\$2,326	\$3,278	\$2,239	\$3,313	\$2,789

# EXHIBIT 2-4

## COMPARISON OF FY1991 EXPENDITURES

1. AS A PERCENTAGE OF TOTAL EXPENDITURES					
PROGRAM	TECH	SD SCHOOL MINING	NM INSTIT MINING	COLORADO S. MINES	PEER AVERAGE
Instruction	50.8%	57.1%	36.9%	50.2%	48.1%
Research	0.6%	2.4%	18.0%	0.8%	7.1%
Public Service	0.0%	1.2%	0.7%	0.0%	0.6%
Academic Support	6.9%	14.6%	6.7%	10.1%	10.5%
Student Services	13.1%	4.1%	5.3%	4.3%	4.6%
Institutional Support	9.3%	11.7%	11.1%	12.7%	11.8%
Physical Plant	16.8%	8.8%	17.9%	14.6%	13.8%
Fee Waivers	2.5%	0.0%	3.5%	7.3%	3.6%
Total Expenditures	100.0%	100.0%	100.0%	100.0%	100.0%
2. SUPPORT EXPENDITURES PER STUDENT					
PROGRAM	TECH	SD SCHOOL MINING	NM INSTIT MINING	COLORADO S. MINING	PEER AVERAGE
Academic Support	\$421	\$748	\$844	\$920	\$837
Student Services	\$799	\$209	\$671	\$389	\$423
Institutional Support	\$565	\$598	\$1,413	\$1,152	\$1,054
Physical Plant	\$1,023	\$451	\$2,269	\$1,331	\$1,351
Three Support Programs	\$1,785	\$1,555	\$2,928	\$2,461	\$2,315
Support plus Plant	\$2,808	\$2,006	\$5,198	\$3,792	\$3,665



## EXHIBIT 2-5

### COMPARISON OF FY1991 EXPENDITURES

1. AS A PERCENTAGE OF TOTAL EXPENDITURES							
PROGRAM	WMCUM	DICKINSON STATE	DAKOTA STATE	MAYVILLE STATE	VALLEY CITY	WESTERN NEW MEX.	PEER AVERAGE
Instruction	49.8%	53.3%	43.9%	46.6%	53.1%	46.2%	48.6%
Research	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Public Service	0.0%	0.0%	3.0%	0.0%	0.0%	0.6%	0.7%
Academic Support	6.2%	9.0%	18.6%	7.4%	7.3%	8.9%	10.2%
Student Services	13.1%	7.3%	9.9%	13.8%	7.9%	12.2%	10.2%
Institutional Support	13.8%	11.5%	14.8%	11.3%	9.7%	16.5%	12.8%
Physical Plant	14.7%	18.2%	9.8%	21.0%	22.0%	15.1%	17.2%
Fee Waivers	2.4%	0.7%	0.0%	0.0%	0.0%	0.5%	0.3%
Total Expenditures	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
2.SUPPORT EXPENDITURES PER STUDENT							
PROGRAM	WMCUM	DICKINSON STATE	DAKOTA STATE	MAYVILLE STATE	VALLEY CITY	WESTERN NEW MEX.	PEER AVERAGE
Academic Support	\$319	\$473	\$1,084	\$413	\$420	\$552	\$588
Student Services	\$678	\$384	\$578	\$777	\$452	\$762	\$591
Institutional Support	\$716	\$607	\$865	\$632	\$559	\$1,025	\$737
Physical Plant	\$758	\$957	\$572	\$1,177	\$1,261	\$940	\$981
Three Support Programs	\$1,712	\$1,464	\$2,527	\$1,822	\$1,431	\$2,339	\$1,916
Support plus Plant	\$2,470	\$2,421	\$3,099	\$2,998	\$2,692	\$3,278	\$2,898

Our review of the accuracy of the peer comparisons indicates that the results should be considered as generally accurate indicators, with the recognition that the specific numbers may be subject to adjustment for the reasons discussed below.

In our review we determined that the staff of the Office of the Commissioner who were involved in the comparison process worked diligently to produce the most accurate information within the constraints of the study design and available time. A common FTE definition was used and instructions were provided to the peer respondents and, in most cases, added review was made where there were questions. A consistent structure for the analysis was therefore established. In addition, no instances were identified where any attempt appeared to be made to inflate the expenses of the peer schools. As a matter of fact, efforts were apparent to exclude any questionable expense. However, our analysis did identify several areas where elements of non-comparability may exist in the comparisons. These are as follows:

- The analysis excludes "designated" but otherwise unrestricted funds since these are treated as exempt from general fund "trade-off" in Montana. This category includes indirect cost credits, internal sales and services (which should be covered in the direct departmental expense), lab and course fees and any other revenue whose expense can be directly tracked. This injects an element of non-comparability of data since the Commission staff does not have first hand knowledge of the accounting practices of the peers and the instructions provided presumed that the peers understand "designated" funds.
- Several instances were identified where peer institution lab and course fees and associated expenditures were left in the calculations. In another case (Adams State) the staff interpretation treated 1/3 of tuition and fees as "designated". In some instances, summer enrollments were excluded as "self supporting" but no adjustment in expenditures had been made.



- It is possible that the peer comparisons would change if they were made on the basis of unrestricted Educational and General expenditures, after ensuring there was no double counting of the expenses of internal service units. As a cross-check, this type of comparison should be made at the earliest opportunity to clarify the extent of difference in the levels of expenditure between the Montana units and the "peers" under both definitions.
- As noted above, even with the suggested added analysis we would not anticipate that the overall pattern of Montana institution's costs relative to the peers are likely to change.

These findings are borne out by an independent review conducted by the Office of the Legislative Auditor which stated, *"CHE officials stated they were not able to identify and adjust all costs of a peer school to ensure appropriated expenditures in the Current Unrestricted Funds were exactly comparable to the Montana schools appropriated expenditures. CHE officials believe these differences would not materially misstate the costs per FTE calculations for comparison purposes. Based on our review of the CHE study and our contacts with the peer schools, it appears the differences are not material."*

The Office of the Commissioner has recently completed a review of tuition and fee charges which provides comparisons of expenditures with the peer schools after excluding fee income subsequently classified as current unrestricted non-appropriated income. The changes in overall peer average expenditures per student ranged from almost nothing (three tenths of one percent in the case of UM/MSU peers) to 3.2% for Northern Montana's peers. These comparisons, along with the findings of the Legislative Audit staff are included in Appendix A. It should be noted that these comparisons were at the total level and the proportional variations could be greater at the program level.

For an additional perspective, we reviewed national comparisons prepared by John Minter and Associates covering staffing levels reported to the federal government on the annual IPEDS reports. The most recent data available are for

1989-90. Data for 1991-92 will not be available until approximately mid-Summer. Since there is a wide range of interpretation as to the meaning of the personnel categories used in the report, we reviewed reported counts and ratios for three categories: Executive, Administrative and Managerial; Professional Non-faculty; and Technical and Paraprofessional for Montana institutions and as many peers as we could locate. Comparisons are made on ratios of staff by category, students per staff and staff per faculty. The results are set forth on Exhibits 2-6 through 2-10 on the following pages.

## EXHIBIT 2-6

Land Grant	Montana State University	North Dakota State University	University of Wyoming	Utah State University	University of Idaho	University of Nevada Reno	Peer Average
Categories as percent of total staff							
Exec., Admin, Managerial	5.3%	1.9%	3.5%	3.3%	3.3%	1.1%	2.6%
Professional Non-Faculty	17.0%	10.3%	21.7%	21.5%	16.5%	13.2%	16.6%
Tech., Paraprofessional	8.3%	6.5%	4.3%	9.0%	6.2%	7.3%	6.7%
Total	30.6%	18.7%	29.5%	33.8%	26.0%	21.6%	25.9%
Faculty	30.4%	35.6%	25.7%	30.2%	32.9%	33.9%	31.7%
Ratio of Students to Staff							
Total Staff	3.5	3.8	3.4	4.2	3.4	3.7	3.7
Exec., Admin, Managerial	66.7	195.6	97.2	128.4	101.1	348.5	174.2
Professional Non-Faculty	20.6	36.3	15.6	19.6	20.3	28.1	24.0
Tech., Paraprofessional	42.5	57.7	79.3	46.8	54.2	51.1	57.8
Sum E,P,T	11.5	20.0	11.5	12.5	12.9	17.2	14.8
Ratio of Staff to Faculty							
Total Staff	2.3	1.8	2.9	2.3	2	1.9	2.2
Exec., Admin, Managerial	0.2	0.1	0.1	0.1	0.1	0	0.1
Professional Non-Faculty	0.6	0.3	0.8	0.3	0.5	0.4	0.5
Tech., Paraprofessional	0.3	0.2	0.2	0.7	0.2	0.2	0.3
Sum E,P,T	1.1	0.6	1.1	1.1	0.8	0.6	0.8

Source: College &amp; University Staff Ratios, 1989-90 John Minter Associates

## EXHIBIT 2-6 CONTINUED

Non Land Grant	University of Montana	Northern Arizona University	New Mexico State University	University of North Dakota	Peer Average
Categories as percent of total staff					
Exec., Admin, Managerial	4.5%	8.8%	1.1%	2.5%	4.1%
Professional Non-Faculty	12.8%	13.1%	26.9%	18.8%	19.6%
Tech., Paraprofessional	6.1%	3.6%	7.2%	8.8%	6.5%
Total	23.4%	25.5%	35.2%	30.1%	30.3%
Faculty	34.0%	30.2%	17.1%	31.9%	26.4%
Ratio of Students to Staff					
Total Staff	4.5	5.6	3.2	4.7	4.5
Exec., Admin, Managerial	99.9	63.9	279.6	168.5	170.7
Professional Non-Faculty	35.3	42.8	11.9	22.2	25.6
Tech., Paraprofessional	74.5	154.6	44.6	47.5	82.2
Sum E,P,T	19.3	22.0	9.1	13.9	15.0
Ratio of Staff to Faculty					
Total Staff	1.9	2.3	4.6	2.1	3.0
Exec., Admin, Managerial	0.1	0.3	0.1	0.1	0.2
Professional Non-Faculty	0.4	0.4	1.5	0.6	0.8
Tech., Paraprofessional	0.2	0.1	0.4	0.3	0.3
Sum E,P,T	0.7	0.8	2	1	1.3

Source: College &amp; University Staff Ratios, 1989-90 John Minter Associates

## EXHIBIT 2-7

	Eastern Montana College	Southern Oregon State College	Eastern New Mexico University	Eastern Washington University	Peer Average
<b>Categories as percent of total staff</b>					
Exec., Admin, Managerial	9.0%	3.4%	5.1%	8.2%	5.6%
Professional Non-Faculty	10.4%	3.1%	15.4%	7.4%	8.6%
Tech., Paraprofessional	5.8%	4.9%	4.7%	3.8%	4.5%
Total	25.2%	11.4%	25.2%	19.4%	18.7%
Faculty	33.4%	25.7%	27.8%	41.8%	31.8%
<b>Ratio of Students to Staff</b>					
Total Staff	6.4	6.4	5.8	5.6	5.9
Exec., Admin, Managerial	70.6	169.9	114.7	67.9	117.5
Professional Non-Faculty	61.1	203.9	37.8	75.1	105.6
Tech., Paraprofessional	109.6	131.5	123.8	147.1	134.1
Sum E,P,T	25.2	54.4	23.1	28.7	35.4
<b>Ratio of Staff to Faculty</b>					
Total Staff	2.0	2.9	2.6	1.4	2.3
Exec., Admin, Managerial	0.3	0.1	0.2	0.2	0.2
Professional Non-Faculty	0.3	0.1	0.6	0.2	0.3
Tech., Paraprofessional	0.2	0.2	0.2	0.1	0.2
Sum E,P,T	0.8	0.4	1.0	0.5	0.6

Source: College &amp; University Staff Ratios, 1989-90 John Minter Associates

Note: Institutions reporting less than total staff were excluded



## EXHIBIT 2-8

	Northern Montana College	Adams State College	Lewis-Clark State College	Western New Mexico University	Peer Average
<b>Categories as percent of total staff</b>					
Exec., Admin, Managerial	9.1%	9.1%	12.1%	7.9%	9.7%
Professional Non-Faculty	4.6%	11.0%	10.4%	12.2%	11.2%
Tech., Paraprofessional	0.4%	3.0%	8.8%	2.2%	4.7%
Total	14.1%	23.1%	31.3%	22.3%	25.6%
Faculty	55.1%	36.1%	40.8%	26.3%	34.4%
<b>Ratio of Students to Staff</b>					
Total Staff	5.4	8.3	7.7	5.2	7.1
Exec., Admin, Managerial	59.4	90.9	63.6	65.1	73.2
Professional Non-Faculty	118.8	75.2	73.7	42.1	63.7
Tech., Paraprofessional	1426	272.8	87.8	238.8	199.8
Sum E,P,T	38.5	35.8	24.6	23.1	27.8
<b>Ratio of Staff to Faculty</b>					
Total Staff	0.8	1.8	1.4	2.8	2.0
Exec., Admin, Managerial	0.2	0.3	0.3	0.3	0.3
Professional Non-Faculty	0.1	0.3	0.3	0.5	0.4
Tech., Paraprofessional	0	0.1	0.2	0.1	0.1
Sum E,P,T	0.3	0.7	0.8	0.9	0.8

Source: College &amp; University Staff Ratios, 1989-90 John Minter Associates

## EXHIBIT 2-9

	Montana College of Mineral Sci. & Tech.	Colorado School of Mines
<b>Categories as percent of total staff</b>		
Exec., Admin, Managerial	7.7%	1.3%
Professional Non-Faculty	13.9%	6.3%
Tech., Paraprofessional	5.8%	14.8%
Total	27.4%	22.4%
Faculty	39.0%	47.2%
<b>Ratio of Students to Staff</b>		
Total Staff	5.5	4.2
Exec., Admin, Managerial	70.8	320.4
Professional Non-Faculty	39.3	66
Tech., Paraprofessional	94.3	28
Sum E,P,T	19.9	18.5
<b>Ratio of Staff to Faculty</b>		
Total Staff	1.6	1.1
Exec., Admin, Managerial	0.2	0
Professional Non-Faculty	0.4	0.1
Tech., Paraprofessional	0.1	0.3
Sum E,P,T	0.7	0.4

Source: College &amp; University Staff Ratios, 1989-90 John Minter Associates

## EXHIBIT 2-10

	Western Montana College	Dickinson State University	Dakota State College	Valley City State College	Western New Mexico University	Mayville State University	Peer Average
Categories as percent of total staff							
Exec., Admin, Managerial	13.5%	5.4%	19.8%	6.7%	7.9%	5.8%	9.1%
Professional Non-Faculty	13.5%	9.5%	6.4%	10.4%	12.2%	13.6%	10.4%
Tech., Paraprofessional	12.9%	2.0%	1.2%	3.7%	2.2%	1.9%	2.2%
Total	39.9%	16.9%	27.4%	20.8%	22.3%	21.3%	21.7%
Faculty	25.7%	48.0%	33.1%	43.0%	26.3%	38.8%	37.8%
Ratio of Students to Staff							
Total Staff	4.8	16.8	5.4	7.6	5.2	6.8	8.4
Exec., Admin, Managerial	36	311.6	27.5	113.7	65.1	116.3	126.8
Professional Non-Faculty	36	178.1	85.1	73.1	42.1	49.9	85.7
Tech., Paraprofessional	37.7	831	468	204.6	238.8	349	418.3
Sum E,P,T	12.2	99.7	19.9	36.5	23.1	31.7	42.2
Ratio of Staff to Faculty							
Total Staff	2.9	1.1	2	1.3	2.8	1.6	1.8
Exec., Admin, Managerial	0.5	0.1	0.6	0.2	0.3	0.2	0.3
Professional Non-Faculty	0.5	0.2	0.2	0.2	0.5	0.3	0.3
Tech., Paraprofessional	0.5	0	0	0.1	0.1	0.1	0.1
Sum E,P,T	1.5	0.3	0.8	0.5	0.9	0.6	0.6

Source: College &amp; University Staff Ratios, 1989-90 John Minter Associates



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DEFINITIONS OF EMPLOYMENT CATEGORIES REFERENCED IN  
EXHIBITS 2-6 TO 2-10

EXECUTIVE, ADMINISTRATIVE AND MANAGERIAL: Persons whose assignments require primary (and major) responsibility for management of the institution, or a customarily recognized department or subdivision thereof. Assignments require the performance of work directly related to management policies or general business operations of the institution, department, or subdivision. It is assumed that assignments in this category customarily and regularly require the incumbent to exercise discretion and independent judgement and direct the work of others.

PROFESSIONAL (NON-FACULTY): Persons employed for the primary purpose of performing academic support, student services, and institutional support activities, whose assignments would require either college graduation or experience of such kind and amount as to provide a comparable background.

TECHNICAL AND PARAPROFESSIONAL: Persons whose assignments require specialized knowledge or skills which may be acquired through experience or academic work, such as offered in many 2-year technical institutes, junior colleges, or through equivalent on-the-job training.

Based on the data in the above tables, the staffing ratios, particularly the ratio of students to staff, show that the Montana institutions are average or below average when compared to the reports of the Peers, although they are closer to the peers than the dollar comparisons in Exhibits 2-1 through 2-5. This may be indicative of salary differences, the offsetting affect of Student Services expenditures or (as Eastern Montana college has pointed out in response to our draft report) the inclusion of professional staff funded from other than current unrestricted funds or a combination of the above. In any event, these comparisons tend to confirm, rather than dispute, the peer findings.

### **2.3 Technical Centers:**

Exhibit 2-11 presents a summary of expenditures by program for each of the technical centers and the National Association of College and University Business Officers (NACUBO) median expenditures for similar institutions in 1990-91. For comparative purposes, we used a subset of the expenditures per credit plus non-credit FTE student representing vocational-technical colleges with student full-time equivalents of less than 1,000. The subset of this group more closely resembled the characteristics of the Montana technical centers than the entire small college group and includes the following institutions:

- Alabama Aviation & Technical College
- Douglas MacArthur State Technical College
- Hartford State Technical College
- Eastern Maine Technical College
- Kennebec Valley Technical College
- McDowell Technical Community College
- Piedmont Community College
- Randolph Community College

**EXHIBIT 2-11**  
**COMPARISON OF FY1991 EXPENDITURES**  
**TECHNICAL CENTERS**

1. AS A PERCENTAGE OF TOTAL EXPENDITURES						5 SCHOOL		
PROGRAM	BILLINGS	BUTTE	GREAT FALLS	HELENA	MISSOULA	AVERAGE	NACUBO*	
Instruction	54.1%	57.1%	62.9%	57.8%	54.8%	57.3%	54.4%	
Academic Support	6.6%	6.5%	8.2%	9.9%	6.7%	7.6%	9.7%	
Student Services	13.7%	12.6%	6.4%	9.8%	12.1%	10.9%	9.9%	
Institutional Support	12.3%	9.9%	10.4%	8.9%	12.8%	10.8%	16.9%	
Plant Operation & Maintenance	13.3%	13.9%	12.1%	13.6%	13.6%	13.3%	9.0%	
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
2. EXPENDITURES PER STUDENT						5 SCHOOL		
PROGRAM	BILLINGS	BUTTE	GREAT FALLS	HELENA	MISSOULA	AVERAGE	NACUBO*	
Instruction	\$2,642	\$3,495	\$2,619	\$2,929	\$2,990	\$2,935	\$2,903	
Academic Support	\$323	\$398	\$343	\$503	\$367	\$387	\$550	
Student Services	\$668	\$774	\$268	\$498	\$659	\$574	\$685	
Institutional Support	\$598	\$604	\$434	\$451	\$698	\$557	\$897	
Plant Operation & Maintenance	\$648	\$853	\$503	\$690	\$740	\$687	\$491	
Total	\$4,880	\$6,124	\$4,167	\$5,071	\$5,454	\$5,139	\$5,768	
Three Support Programs	\$1,590	\$1,776	\$1,045	\$1,452	\$1,725	\$1,517	\$2,132	
Support Plus Plant	\$2,238	\$2,629	\$1,548	\$2,142	\$2,465	\$2,204	\$2,623	

\* NACUBO percentages adjusted to 100% NACUBO dollar medians do not equal total median.

- Washington State (Ohio) Community College
- Denmark Technical College
- Technical College of the Lowcountry

Overall, Montana's technical centers compare favorably in administrative expenditures with the institutions in the NACUBO sample. Referring to the exhibit, the technical centers spend significantly less on academic support, student services and institutional support per FTE student. The NACUBO median expenditure per FTE for institutional support was \$897 whereas the highest expenditure among the Montana technical centers was \$698 and the average of the five centers was \$557. Expenditures per FTE for instruction were about the same as the NACUBO median. Plant operation and maintenance expense per student was significantly higher for the Montana technical centers. The most likely reason for the difference is that the gross square feet (GSF) per FTE student at the Montana centers is significantly higher than the NACUBO institutions. In the complete NACUBO sample, the median GSF per FTE was 161.5 while in Billings, for example, the GSF per FTE is 273.8.

Costs per FTE for student services fluctuate considerably among the centers with one (Butte) higher than NACUBO median. Great Falls, on the other hand, spent approximately 40% of the NACUBO median in this program on a per FTE student basis. Of the five centers, Great Falls has the lowest expenditures per FTE student in all programs. In discussions with personnel at the Great Falls center, we learned that they believe additional funding is needed.



## 2.4 Summary:

Our analysis indicates that the following concluding observations are appropriate:

1. *At present, peer data should be considered a reliable general indicator. Comparisons should either be based on total Educational and General expenditures after adjusting for self supporting internal services or should consistently exclude well defined and understood "designated" funds. As a cross-check, this type of comparison should be made at the earliest opportunity to clarify the extent of difference in the levels of expenditure between the Montana units and the "peers" under both definitions.*
2. *The combination of analyses indicates that Montana public four year colleges and universities expend less per student in the supporting programs of academic administration, institutional support and physical plant operation and maintenance than either national or peer group averages although expenditures in student services are above national and peer averages. We believe it is unlikely that further analysis of the calculation of peer averages will change that overall picture. In addition, our review of expenditures per student at the five technical centers indicates lower expenditures per student in all support programs than the appropriate national sample group of two year technical schools. Instructional expenditures per student were at approximately the national average. The overall results of our review indicate that, other than in student services, "administrative" expenditures in Montana institutions are below national and peer group averages.*





### **3.0 The Nature of the System and the Role of the Board of Regents:**

#### **3.1 Historical Perspective:**

As described earlier, the MUS consists of two doctoral universities, four colleges and five technical centers. The three public community colleges are coordinated by the Board of Regents. Currently, all four year institutions (with the exception of Western Montana College) and the technical centers report directly to the Board of Regents through the Office of the Commissioner. In 1987, Western was merged with the University of Montana (UM). The community colleges are governed by local boards. The Office of the Commissioner serves and reports directly to the Board of Regents.

Montana institutions of higher education have a long history of local operating flexibility and independence. This dates back to the early establishment of most of the units at a time when educational issues were very different. The University of Montana, Montana State University, Montana Tech and Western Montana College were founded in 1893. Eastern and Northern Montana Colleges were founded in the late 1920s.

In developing its public higher education system, Montana, like the Dakotas, chose to create a relatively large number of four year institutions to provide access to different parts of the state. In order to gain a perspective on the number of Montana institutions per capita, a review of the Western states and the number of public institutions of higher education is presented in Exhibit 3-1 on the following page.

As the exhibit indicates, Montana has the third smallest number of residents per two or four year public higher education institution, falling slightly behind Wyoming. Montana also ranks third in residents per four year institution, just behind North Dakota. Also, compared to the national average, Montana has a significantly

lower population per public institution. This is due to the commitment to provide access to higher education for all residents in one of the largest geographic areas of the country with a dispersed population.

### Exhibit 3-1

#### Population Per Number of Public Higher Education Institutions, 1991

State	Total Population	Number per Inst .	2 Yr Inst	Number per Inst.	4 Yr Inst	Number per Inst.
North Dakota	635,000	42,333	9	70,555	6	105,833
Wyoming	460,000	57,500	7	65,714	1	460,000
Montana	808,000	57,714	9	101,000	6	134,667
New Mexico	1,548,000	70,363	16	96,750	6	258,000
South Dakota	703,000	87,875	1	703,000	7	100,428
Colorado	3,377,000	120,607	15	225,133	13	259,769
Oregon	2,922,000	139,142	13	224,769	3	365,250
Idaho	1,039,000	173,166	3	346,333	4	259,750
Arizona	3,750,000	187,500	17	220,588	3	1,250,000
Utah	1,770,000	196,666	5	354,000	4	442,500
Nevada	1,284,000	241,000	4	321,000	2	642,000
Washington	5,018,000	218,173	27	185,851	6	836,333
United States	252,177,000	160,929	972	259,441	595	423,826

**Note:** Washington has added five former vo-tech institutes to its 2 year group.

As in most states, the Montana institutions have developed strong local political support which, when coupled with a tradition of local independence, resulted in the development of a confederation of institutions that was not designed to function as a "system".

The establishment of educational program and fiscal "gate keepers" through central boards and strong coordinating agencies has been a later development and

was largely due to the extreme growth in higher education in the 1960s and 1970s, and the ever increasing cost of higher education combined with limited resources. The State of Montana has chosen to establish a single Board of Regents to "supervise, coordinate, manage and control the Montana university system...". The legal basis for Board operations is discussed in the following section.

### **3.2 Legal Status of the Board of Regents:**

The statutes outline the Board of Regents' powers and duties for the "control and supervision of the units of the Montana university system, which shall be considered for all purposes one university" (emphasis added). In addition, the statutes place all other operating authority with the Board of Regents to determine the extent of powers and duties that may be delegated to the units. The Regents have the authority to appoint the president and staff on the various campuses. It is very clear that the framers of the statutes anticipated a strong single governing body for the MUS. In contrast, the statutes provide only limited statutory authority for the presidents of the units. SS 20-25-301 (11) reads, "...confer, at the regents' discretion upon the president and the faculty of each of the units of the system for the best interest of the unit such authority related to the immediate control and management, other than financial, and the selection of teachers and employees" (emphasis added).

The statutes also create "three member local executive boards, who have such direction and control, other than financial, of the affairs of the respective units as may be conferred by the Regents" (emphasis added). The executive boards have never been given any authority and appear to function as advisory to the presidents. From the above the intent is clear that financial authority was to be reserved exclusively for the Regents.



The statutory provisions were enacted prior to the 1972 State Constitutional provisions for the creation of Board of Education, consisting of a Board of Regents and a Board of Public Education. Section 9 (2) (a) of the Montana Constitution reads: "The government and control of the Montana university system is vested in a board of regents of higher education which shall have full power, responsibility, and authority to supervise, coordinate, manage and control the Montana university system and shall coordinate other public educational institutions as assigned by law." Here again it is clear from the direct meaning of the words that the authors and voters intended that there be a strong board to govern the affairs of the higher education system and its constituent units.

The contrast between the evolution of the system and the constitutional and statutory expectations for the Board of Regents and its executive office is evident and was clearly apparent in comments received during the site visit phase of this study. In addition, the recommendations of both the outgoing Governor and the incoming Governor calling for system restructuring have given this issue added visibility.

A critical aspect of this issue is the appropriate balance of functions between the central office and the institutions. What functions must be carried out directly by the Regents and its central staff and what system wide functions can be delegated to the units that will satisfy the Regent's explicit constitutional responsibility to manage and control the Montana higher education system and provide for efficient and effective operation of the system?

### **3.3 Required System Functions for the Board of Regents:**

While the statutes outlining the powers of the Regents, Commissioner and the units can be modified by majority vote of the legislature, the constitutional mandate is difficult to change. Unless the constitution is amended, necessary support must



be provided to the Board of Regents if they are to carry out their constitutional responsibilities. The existence of a strong Board of Regents does not mean the institutions need to be micro managed on a day by day basis by the Regents or their staff. It does mean that the Board of Regents is accountable for implementing policies and programs that will bring about the efficient and effective delivery of higher education as established by law. There are a number of service functions which many central board offices operate which are not essential to the central governance/coordination responsibilities of a central board. These include personnel, payroll, computer services, etc. Where these services are carried out is clearly a matter for board discretion. They can be fully decentralized, centralized at one institution, centralized in a consortium structure or centralized in the board office.

It is our belief that whatever decision is made regarding service operations, the Board must have sufficient staff support to carry out the following responsibilities consistent with its constitutional mandate:

- advocating the programs and needs of higher education
- maintaining budget and financial information and control;
- ensuring common and consistent accounting for funds;
- developing a well justified capital budget;
- reviewing and approving academic programs;
- assuring articulation and transfer among units;
- standardizing and implementing common data systems;
- developing policies and auditing their implementation;
- maintaining the accounts and records of the Regents; and
- managing the legal affairs of the system.

### 3.4 Restructuring Issues:

Interviews with institutional administrators prompted several suggestions for restructuring the system. Examples of the types of restructuring alternatives suggested included:

- Eliminating colleges;
- Selling colleges;
- Merging colleges;
- Privatizing colleges;
- Placing administration of the vocational-technical centers under one institution;
- Placing administration of the vocational-technical centers with a local college;
- Eliminating the Office of the Commissioner;
- Expanding the Office of the Commissioner; and
- Creating a multi-tier system of education.

Nearly every senior administrator interviewed indicated that the state of Montana did not need six four year institutions but that they fully expected that no institution in the state would be closed. This feeling is based on many previous proposals to close institutions of higher education in the state. None have been successful. The closest was the merger of Western with the University of Montana (discussed in the following chapter). This clearly indicates the tension which underlies attempts to become more efficient through fewer separate units and the desire to provide access and retain institutional identity. The latter is clearly reflected in the decision of the Legislature to make institutionally specific appropriations. At the same time, the small size of many of the units, particularly the technical centers, makes it difficult to provide a full range of services to students.

In addition, the lack of a system-wide approach to the development and use of standardized administrative and support systems means that each institution must develop or acquire its own systems. The combination of limited funding and a desire to retain a fully independent status means that the small units will continue to operate support systems that are often not capable of keeping pace with today's technologies.

In the absence of a clearly defined and universally accepted system of governance, the Legislature, the executive branch, the Commissioner's office and the institutions are each attempting to do what they believe to be their responsibility. Until the issue of control and governance is resolved, the ability to find true and long term solutions to administrative issues will be difficult and parochial interests will likely continue to affect the development of the system. The authors of the statutes and the constitution seem to have understood this and placed the authority and the point of accountability with a strong Board of Regents. However, there continues to be significant disagreement on how to structure the MUS to achieve the most effective and efficient higher educational delivery system for Montanans.

The Commissioner of Higher Education, in his presentation to the Education Subcommittee dated February 17, 1993, discussed the issue of restructuring the system of higher education and identified a number of possible reorganizations. He concluded with a recommendation that the Board direct the Office of the Commissioner to prepare a plan for significant structural change that "will enhance delivery of post-secondary educational services in Montana" to be presented to the Board by October 1, 1993. We wholeheartedly endorse this initiative and in the following chapter we will discuss a concept which can be considered in the development of such a plan.



#### **4.0 Recommendations Not Related to Specific Budget Programs:**

This portion of our report addresses areas which cut across specific institutions and individual budget programs. The issues and recommendations deal with questions of policy within the context of the study. They address a suggested reorientation of the system directed toward inter-institutional partnerships, a refocussing of the Office of the Commissioner, the RERS system and common systems development, use of grant and contract research overhead allocations and the potential for added use of telecommunications.

#### **4.1 Functional Consolidation for Service Delivery**

##### **4.1.1 The Units of the MUS:**

As indicated in the previous chapter, throughout our visits to the institutions and in interviews with staff at both the campus and central office level, we have heard repeatedly that the current structure of the MUS is not appropriate in the context of Montana's population characteristics and growing fiscal problems. We fully agree with the Commissioner's recommendation to the Board to fully examine delivery of services. It is important to realize that system wide restructuring will not, in all probability, result in significant immediate savings. The potential benefits are more long term in nature and concern the effective delivery of services to students. Our study has not found the Montana University System to be grossly overstaffed in administrative areas. It is possible that the real issue to be resolved is not so much "structure" as it is who will provide what services to students and how they should be provided. Several possibilities exist which the System can explore, including mergers, affiliations and other forms of partnerships among institutions.

Historically, certain terms which describe associations of one college with another have taken on connotations which are so ingrained that their use to



describe any other situation is subject to misinterpretation. This particularly applies to the words "affiliation" and "merger".

The only significant modification of the system structure has been the merger of Western Montana College into the University of Montana, authorized by the Board of Regents in January 1987. The formal motion stated:

"... a plan be developed by the Presidents of the University of Montana and Western Montana College, and the Commissioner of Higher Education, to administratively merge Western Montana College as a four-year branch of the University of Montana by July 1988."

In our interviews with administrators from other colleges, opinions were expressed that the merger was only a "paper merger", that there had been only limited changes in administrative structure of the College or University as a result, and as a mechanism for cost-savings, it had been ineffective. In discussions with the University of Montana, the benefits of improved articulation, enhancements to academic programs and expansion of support services at WMCUM were stressed as the desired outcomes.

According to documents developed by the University and the College, it did not appear to be the intention of the Regents to realize cost savings from this merger, but rather to improve services. In a December 1987 progress report, the President of UM and the Acting President of WMC, submitted, along with several other recommendations, the suggestions that "significant financial savings that might be realized from the merger should not be returned to the state's treasury; instead, any savings realized from the merger should be reinvested in WMC." At that time, the Regents did not formally adopt these recommendations but no other directive relative to the disposition of funds has been made by the Regents. More recent progress reports to the Regents reveal similar considerations: In "A Progress Report on the Merger of Western Montana College into the University of Montana," submitted on June 1, 1990, it is noted that the campus administrators, in developing

merger plans, developed additional goals. One of these goals was that the "merger should enable WMC to reallocate to its academic programs resources from eliminated programs or administrative tasks for which UM has taken responsibility." President Dennison reiterated these sentiments in late 1991: "Some critics focus sharply upon the absence of any financial savings. However, at no time did the Regents or any administrator guarantee financial savings from the merger. Programmatic consolidation and enhanced services provided the justification."<sup>1</sup> Clearly, it is the understanding of the University and the College that financial savings should not be a consideration in the merger activities and that any savings achieved should be reinvested in WMCUM. At the same time, there has been and continues to be a potential for savings through adoption of one of the "merger models" suggested by the President of the UM and the Provost of WMCUM which would combine most administrative and academic services over a period of years. We endorse this approach as being consistent with our recommendations for functional consolidation.

The pattern of the UM/WMC "merger" contrasts with the type of merger which involves the complete integration of one institution into another. The use of the term creates images in people's minds which may not be intended. We will therefore avoid the use of the term in further discussing this subject.

The concept of "affiliation" offers a model which could have greater applicability to more efficient service delivery to Montana students. The Board of Regents has adopted a definition for the term "affiliation", indicating that it means that credits can be transferred back and forth between institutions, services and personnel may be shared and that cooperation at every level is encouraged. Each institution retains its own identity under this arrangement.

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<sup>1</sup>"Report on the Merger of Western Montana College Into the University of Montana," from George M. Dennison to John M. Hutchinson, December 5, 1991.

Currently, institutions are making some limited use of the possibilities of affiliation agreements. Some examples of the cooperative agreements which have resulted are the Billings Technical Center students using the dormitories and library at Eastern Montana College; Northern Montana College is accessing, many of the on-line services the EMC library has secured; and students at Missoula have access to dorm space through the University of Montana.

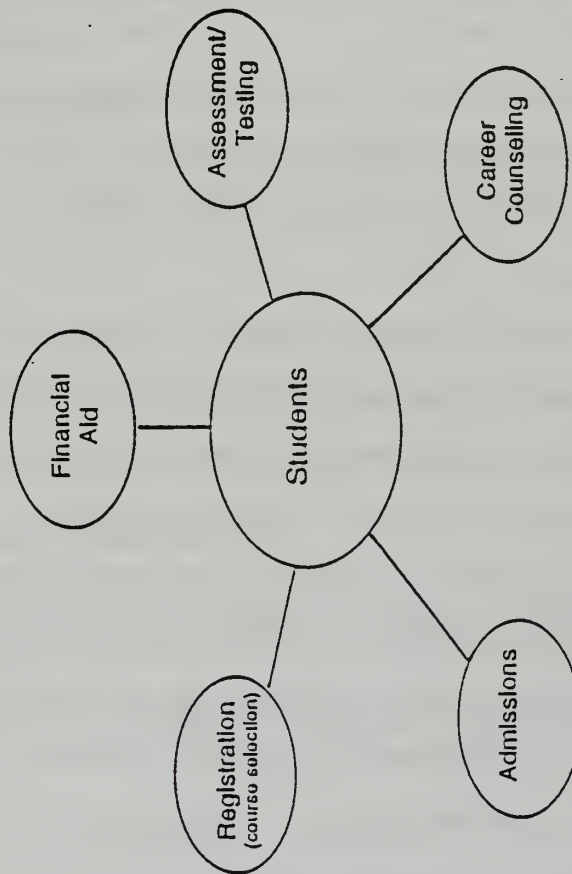
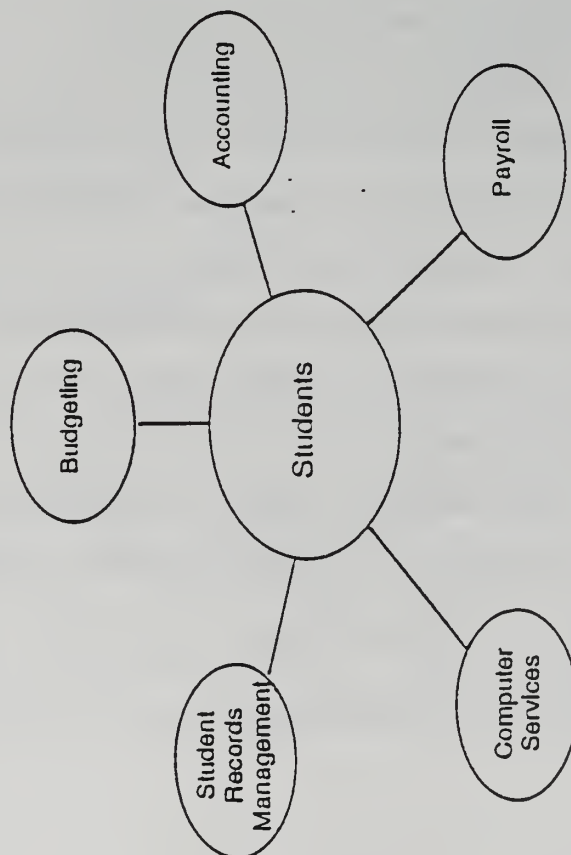
Montana, like many other states, is and will continue to face the prospect of reduced state general funding without a commensurate decrease in demand for services and an increasing level of regulatory requirements by the state and federal governments. In order to continue to provide quality educational services for Montana residents, the MUS must explore ways to reduce or at least limit the increase in costs. There are areas of activity which support the provision of educational services to students, but which are not readily visible to the students and the surrounding community. In our opinion, the Office of the Commissioner and the units should explore the use of affiliation agreements to functionally consolidate some of these services. Exhibit 4-1 on the following page is a representation of the division of services which support students and institutional operations.

When considering restructuring options, the institutions and the Commission should realistically assess which "non-apparent" functions could be reconfigured so that one unit could deliver the services to all other units. This approach differs from pure "centralization" of service at the central office level. As we will show in the next section, several states have chosen to centralize a wide range of services within the Board's central office. This has not been the approach of most Rocky Mountain states however and, at least at the present time, a centralization of numerous services in Helena would likely be viewed with distrust as an assumption of greater power by the Office of the Commissioner. The functional consolidation of services on campus also has the advantage of maintaining a campus orientation of the service and an understanding of its role in institutional operations

Exhibit 4-1  
Montana University System  
Administrative Services

"Non-Visible"  
Administrative Services

Visible  
Administrative Services





and should avoid an "us" versus "them" conflict sometimes associated with centralized services. (It should be noted that a possible exception would be the area of student financial aid records where the potential exists for developing a common records storage system in conjunction with the guaranteed loan program in Helena.)

Functional consolidation of services is more analogous to what often occurs when higher education systems are in a growth mode. In this case, new centers or branches are established but the non-apparent services continue to be delivered from the main campus. There are, however, a few examples of centralized services which have been consolidated on campus, including the Comptroller's Office of the Oregon State System of Higher Education. Although functional consolidation may require more work to negotiate agreements than centralization directly under the Board, the advantages of campus orientation, improved inter-campus interface, and the improved opportunity to recruit and retain staff which comes through working in a college or university environment should be carefully explored. If agreements cannot be reached or if the services do not meet expectations, centralization directly under the Board can then be considered.

It is important to recognize at the on-set that system wide functional consolidation of services cannot be accomplished over night and without reallocation (or possibly addition) of resources, particularly in computer and telecommunications systems. Functional consolidation should not be pursued in the belief that significant short-term savings will be achieved. Instead, these actions should be pursued as a means to contain costs in the future and facilitate operation of the MUS as a system.

The possibility of establishing partnerships between units should be explored and the feasibility of co-locating activities assessed in the following areas:

- payroll services;
- personnel records;



- accounting services;
- central purchasing for the system;
- central maintenance and storage of student records of all types;
- labor relations; and
- computer services.

At a minimum, we would recommend that the specific feasibility analyses include consideration of the following:

- current computing capacity at each campus;
- ability of current software (hybrid or off-the-shelf) to accommodate anticipated requirements;
- changes in costs related to use of telecommunications to access data; and
- assuring an appropriate level of service to each unit.

An additional advantage of developing or implementing common systems in the areas identified above is that more coherent and consistent data would be available for the Regents and the Legislature. Assurance that the data these entities receive is dependable would enhance system credibility and minimize the likelihood that special reporting requirements would be imposed.

#### **4.1.2 Relationship of the Community Colleges:**

Although the state has expressed an intent to fund 55 percent of community college budgets, currently, the colleges receive less than half (49%) of their funding from the state. The balance comes from tuition, grants and local taxes. Our site visits to Montana's three community colleges, Flathead Valley, Miles and Dawson, made it clear that they are dedicated to providing inexpensive, quality education which is responsive to the needs of the surrounding communities. Local support of

the colleges has been and continues to be strong, including significant investment by the local communities in the development of new facilities. Staff on the campuses were found to be very dedicated and hard working. In addition to their administrative responsibility, presidents and vice presidents try to teach at least one section a semester.

Miles Community College and Dawson Community College have made a significant long-term commitment to the provision of education to otherwise "unreachable" areas of the state through use of interactive television transmitted on fiber optic cable. We found this application of technology to be a clear indicator of their commitment to the local rural communities.

The community colleges function very differently from the rest of the higher education institutions in Montana. Local millage support makes up a significant portion of their budgets while other state institutions are not supported by local taxes (with the exception of a small amount of local levy support for the technical centers). Additionally, the community colleges are governed by a local board as well as coordinated by the Board of Regents. In view of the strong local support for the colleges, and the lean administrative and service structure at the campuses, we recommend that they continue in their current mode of operation. Our site visits identified no areas where reductions could be made without commensurate reductions in services to students. The colleges should, of course, take full advantage of the systems and processes developed for the MUS as a part of functional consolidation and they should continue to fully participate in shared delivery of educational services through telecommunication.

#### **4.2 Refocusing the Office of the Commissioner:**

As was discussed earlier in our review of the structure of the system, there are certain functions which are intrinsic to the effective operation of a central state

Board of Regents. These focus on four particular areas: budget and finance, academic programs, common systems and managing the legal affairs of the system.

The size and functions of a central office for a system governing board can vary substantially. A 1992 survey conducted by MGT for another system of higher education encompassed thirteen central offices ranging in size from the California State University system with 423 FTE staff to the South Dakota Board of Regent's Office with a staff of 15. The average size of the central offices in the survey group was 134.5 FTE. The most common coordination/governance functions reported were: Executive Leadership, Academic Affairs/Program Review, Budget and Financial Management, Government or Public Relations, Legal Services, Board Support and Planning and Research. Most of the offices also provided selected central support services. The most common were: Facilities Planning, Computer Services/Information Systems, Payroll, Labor Relations, Personnel Management and Benefits Administration.

We have reviewed the size and functions performed by a number of single boards for higher education in the western United States. They all share the same basic core of responsibility although they vary in the nature of other assigned duties. The results of this review are summarized in Exhibit 4-2. It is clear that the Office of the Commissioner is not large by most contemporary standards.

Exhibit 4-3 details the number of positions and the funding source. Of the total 67.45 FTE positions shown in the Commissioner's office only 19.95 FTE are state funded. This is the approximate effective operating level after the two positions for Minority Achievement are excluded and the 2.1 positions from Carl Perkins federal money are included. For comparison purposes the Commissioner's Office can be viewed as having approximately 20+ FTE for basic functions.

**EXHIBIT 4-2**  
**COMPARISON OF POSITIONS BY FUNCTION**  
**SELECTED SMALLER CENTRAL GOVERNING BOARDS**

Function	Montana	So. Dakota	Utah	Idaho	Iowa
Executive Leadership	2	1	3.3	2	3
Public Relations		1	1	2	
Board Support	1	1	1	1	1
Legal Services	3	2		1	
EEO					1
Academic/Tech Affairs	7	3	5	2	4
Planning & Research		1	5.3		2
Budget & Finance	4.5	4	5	3	5
Auditing			2	1	
Human Relations		2			3
Information Systems	1			1	
Labor Relations	2				
Student Affairs				2	
Totals	20.5	15	22.6	15	19

Note: Of this group, Montana is the only "sole state agency" for vocational education and 2.5 of the Academic/Tech Affairs staff are funded from federal vocational funds.



## EXHIBIT 4-3

## FISCAL YEAR 1992

GENERAL FUND	FTE EMPLOYEES	PERCENT
University System Administration	15.05	22.3%
Carl Perkins Administration (Required Match)	1.10	1.6%
Minority Achievement (Subject to Sunset this Session)	2.00	3.0%
Technical Center Administration	<u>1.80</u>	<u>2.7%</u>
Sub-Total	<b>19.95</b>	<b>29.6%</b>
<b>FEDERAL FUNDS:</b>		
GSL	36.45	54.0%
Talent Search	5.45	8.1%
Carl-Perkins Administration	<u>2.10</u>	<u>3.1%</u>
Sub-Total	<b>44.00</b>	<b>65.2%</b>
<b>PROPRIETARY FUNDS:</b>		
Group Insurance	3.50	5.2%
<b>TOTAL</b>	<b><u>67.45</u></b>	<b><u>100.0</u></b>

Our review indicates that there is more of a need to change the focus of the Office of the Commissioner than to reduce staff. The difficulties do not seem to be too many or too few staff, but how they are used. There are seven positions (including those funded from federal vocational funds) in the Academic Affairs/Technical Education area. With the operational restructuring of three of the technical centers, the attention of at least one of the technical positions can be centered on broader issues of system performance, articulation and outcomes. Either this unit should restore the institutional research position and use it to make peer comparisons or transfer it to fiscal affairs to both improve the comparisons and reduce the workload on the director of budget.



We believe that with the exception of the technical and proprietary nature of GSL and Group Insurance, service programs such as labor relations should be functionally located at one of the four year institutions as discussed above and serve system wide purposes. Until the feasibility of such a move can be explored, we recommend that this activity be clearly identified as a service function in the budget of the Office of the Commissioner. Along the same lines, we recommend that the reporting line of the internal auditors located at UM and MSU be directly to the Board of Regents as the party responsible for governance of the system. The auditors would continue to be based at their current location.

In the following section we discuss the RERS system and recommend its dissolution. At the same time, there is a definite need to develop common information systems for the Montana colleges and universities. We recommend that RERS coordinator position in the Commissioner's Office be converted to one which would work with the institutions in coordinating common systems development.

#### **4.3 RERS and Common Systems Development:**

In 1991, the Legislature directed the implementation of a Regents Employee Reporting System (RERS). The primary purpose of the RERS system is to verify that the information provided by the units is accurate and to provide a data base for analyses and management information.

The system performs no operational function. The system was implemented after legislative frustration over inability to receive accurate and consistent information on the number of positions in the MUS and the extent to which they were filled. RERS data has been used to develop the Legislative Fiscal Analyst's current level personal services budgets in each of the six units, the five vocational technical centers, and other components of the MUS. The community colleges are not included in RERS.

To implement the system, the Legislature authorized 3.82 FTE and related monies for expenses totaling \$420,201 to the six units and the Commissioner's Office during the 1991-1993 biennium. The 1993 biennium budget recommendation from the MUS was \$497,029 to maintain the system. The actual 1992-93 appropriation for RERS maintenance was \$179,039. In interviews with administrators, we learned that RERS maintenance requires approximately one FTE each at UM and MSU. The other 4-year institutions require approximately .50 FTE for RERS maintenance. This equates to about four FTE positions and does not include any staff time for RERS maintenance at the technical centers. Each unit expressed concern that RERS maintenance requires staff time above and beyond what was originally proposed. In addition, one FTE in the Office of the Commissioner is responsible to coordinate the system.

Administrators at all levels expressed frustration related to the upkeep of RERS. It is not used in the payroll or personnel processes or for budgeting purposes. Nor is it linked to existing databases but must be manually edited in addition to existing payroll, personnel and budgeting systems. Overall, the RERS system is duplicative, costly to maintain and does not increase the efficiency of either institutional operations or the Regent's ability to manage fiscal affairs. We recommend that the system be eliminated and steps be taken to assure the Legislature that consistent and accurate information on positions can be provided through existing operational systems. To the extent that assurances cannot be given, operating systems should be modified as rapidly as possible to provide necessary data. Annual cost savings associated with the elimination of RERS would be at least equal to the appropriation.

We recommend that a portion of the savings be used for a central office position of information systems coordinator to work with the institutions, as described above, in the development or acquisition of common information systems and in incorporating distance transmission technology in data support and storage.

#### **4.4            Grant and Contract Research:**

In our field visits we learned that it is currently the policy of the University of Montana to use the indirect cost allowances from research grants to fund additional research activity rather than to cover any of the costs of research administration, research accounting and other costs incurred as a result of the research activity. We recognize that a continuing investment in the start up costs of research grants is good policy, is consistent with legislative authorization and that withdrawing this investment could result in a loss of funds coming into the state.

At the same time, we believe a balance should be struck wherein the units would retain control of indirect cost allowances and utilize them in a manner which would cover costs directly associated with the administration of research including accounting, human resources, etc. In order to avoid a negative impact on the research enterprise, we suggest that a past base year be selected (such as 1989) and that cost allowances calculated on that volume of research stay as direct support of research. All research volume above the base year would be used to calculate a sharing (possibly 50-50) of overhead allowances between administrative support expense and support to research. To the extent that policies of the other institutions meet or exceed this recommended support level, we would suggest no adjustment in current practice.

#### **4.5            Administrative Services for Selected Technical Centers:**

As indicated in Chapter Two, the technical centers spend less per student on administrative support programs than national medians and about the same amount per student on instruction as the national sample. Although their administrative expenses are not excessive, we believe there is potential for improved efficiency and cost savings through consolidation of similar functions with local four-year

institutions. In our opinion, it makes little sense to treat institutions of between 300 and 600 FTE students in the same context as much larger colleges and universities. We recognize the desirability of maintaining the identity of job oriented vocational institutions. However, in Missoula, Butte, and Billings a four year institution is adjacent and equipped to provide basic administrative and student services for the center. Consolidation of these functions would enhance efficiency, and, potentially, strengthen inter-college relationships. Specifically, we believe that the administrative services that could be provided by the four year institution include:

- Admissions/Registration
- Business Management and Accounting
- Career Placement
- Computer Services
- Payroll/Personnel
- Purchasing
- Physical Plant and Operations Oversight
- Security

Given the fact that the vocational-technical centers are small, have not grown substantially over the last several years and are not expected to grow significantly in the future, we believe these functions could be provided by the local four year college without any long-term increase in staffing. This is not to say that one-time set-up costs and staffing will not be incurred to consolidate these functions. For this reason, we do not recommend staff reductions at the technical centers until after the transition has been completed. However, after implementation, positions beyond the following recommended base level should be eliminated:

- Director/Academic Dean
- Fiscal Officer/Accountant
- Financial Aid Officer/Counselor
- Librarian



- Custodial Staff
- Basic Support Staff

Exhibit 4-4 presents a summary of existing staffing levels and associated personnel costs for the centers and proposed staffing levels and costs after consolidation of functions. The exhibit shows the four contract professional-administrative positions that will be necessary as described above. The cost associated with these positions was derived by taking the average existing cost per position by category and multiplying it by the suggested number of positions. Proposed support staff includes all custodial staff and other support staff necessary to operate the center. This staffing level is the result of evaluating the number of custodial staff currently supporting the centers and appropriate support staff for on-site personnel. The overall cost savings associated with staff reductions are estimated to approximate \$1 million after implementation. We recommend that the implementation of this recommendation be phased, beginning with one center this next year and the other two the following year. Our field reviews indicated that the Billings center has had the closest relationship to its local four year institution of the three and thus may be the most appropriate "pilot" center for consolidation of administrative functions.



**EXHIBIT 4-4**  
**MONTANA TECHNICAL CENTERS**  
**STAFFING LEVELS AND PERSONNEL COSTS-1992-93**

Technical Center	Contract Faculty	Contract Professional/Administrative	Support Staff	Other Employees	Total	Employee Benefits	Total Personal Services
<b>EXISTING STAFFING AND COSTS</b>							
Billings (FTE)	23.88	7.57	10.04	0.35	41.84		
(Dollars)	\$789,531	\$302,188	\$198,862	\$7,000	\$1,297,581	\$288,891	\$1,586,472
Butte (FTE)	22.5	4.28	10.77	1.77	39.32		
(Dollars)	\$747,441	\$203,507	\$244,502	\$62,774	\$1,258,224	\$288,737	\$1,546,961
Great Falls (FTE)	35.96	2.8	14.3	1.32	54.38		
(Dollars)	\$1,145,448	\$125,459	\$275,652	\$41,455	\$1,588,014	\$359,470	\$1,947,484
Helena (FTE)	30.52	5.25	14.88	3.18	53.83		
(Dollars)	\$1,040,060	\$248,451	\$280,042	\$63,781	\$1,632,334	\$356,890	\$1,989,224
Missoula (FTE)	33.45	8.74	17.61	1.11	60.91		
(Dollars)	\$1,127,652	\$396,990	\$358,209	\$21,991	\$1,904,842	\$449,116	\$2,353,958
Total	\$4,850,132	\$1,276,595	\$1,357,267	\$197,001	\$7,680,995	\$1,743,104	\$9,424,099
<b>PROPOSED STAFFING AND COSTS</b>							
Billings (FTE)	23.88	4	8	0	35.88		
(Dollars)	\$789,531	\$159,677	\$158,456		\$1,107,663	\$247,739	\$1,355,403
Butte (FTE)	22.5	4	8	0	34.5		
(Dollars)	\$747,441	\$190,193	\$181,617		\$1,119,252	\$253,342	\$1,372,594
Great Falls (FTE)	35.96	2.8	14.3	1.32	54.38		
(Dollars)	\$1,145,448	\$125,459	\$275,652		\$1,546,559	\$359,470	\$1,906,029
Helena (FTE)	30.52	5.25	14.88	3.18	53.83		
(Dollars)	\$1,040,060	\$248,451	\$280,042		\$1,568,553	\$356,890	\$1,925,443
Missoula (FTE)	33.45	4	8	0	45.45		
(Dollars)	\$1,127,652	\$181,689	\$162,730		\$1,472,071	\$335,123	\$1,807,193
Total	\$4,850,132	\$905,469	\$1,058,497	\$0	\$6,814,098	\$1,552,564	\$8,366,662
Difference	\$0	\$371,126	\$298,770	\$197,001	\$866,897	\$190,540	\$1,057,437

#### **4.6    Telecommunications:**

The potential for expanded use of telecommunications was reviewed by a consulting team specializing in the use of telecommunications for instruction and support services in higher education. The team has collected basic information from almost all the units and is in the process of compiling an indexing of systems and equipment which will be provided to the Office of the Commissioner once responses are received from all institutions. A field visit was also made to review developments in Montana in both higher education and the larger context of state telecommunications efforts.

The general direction for educational telecommunications development for the State of Montana was provided by a 1990 consultants report which is referred to as the "Lambda Study". In addition, the State Department of Administration publishes a bi-annual report of state telecommunications plans and developments. These activities form the core of telecommunications development for the State.

During the field visit, meetings were held with representatives of MUSEnet (the Montana University System Educational Network, a voice/data administrative support network), METNET (the Montana Educational Telecommunications Network, an ad-hoc committee facilitating distance learning infrastructure), the State Department of Administration, and representatives of the Office of the Commissioner of Higher Education (OCHE). It was found that those involved in state telecommunications development either from the voice/data or video applications areas are extremely interested in looking for cooperative ways to develop a comprehensive telecommunications infrastructure.

Based on the review, it is evident that in the short run, there are ways that the Montana University System can attain some cost savings using telecommunications technology for administrative support. That will be discussed in the context of the recommendations which follow. In the long run, however, for the System to realize

substantial savings, the System must work in concert with the rest of the State in developing a coordinated approach to telecommunications development. This conclusion is based upon the following findings:

- Currently, the Montana University System utilizes (via MUSEnet and METNET) telecommunications capacities which are imbedded in an existing and growing State telecommunications infrastructure.
- It is unreasonable to expect to grow and develop one aspect of this infrastructure (i.e. MUS applications) in isolation from the growth and development of the entire infrastructure.
- The long term growth and development of telecommunications in the State of Montana involves public policy issues which cannot be effectively addressed by the university system in isolation from the rest of State government.

The recommendations in this section reflect the above findings and conclusions and are based on the following:

- Observations and information gathered during the field visit;
- Discussions with staff from various constituencies prior to and during that visit;
- Prepared materials concerning telecommunications development in Montana; and
- Comparisons of existing telecommunications developments in Montana with relevant developments in other states.

#### Recommendations:

1. A single state-wide telecommunications governance structure should be established to shepherd the growth and development of state telecommunications infrastructure development. Currently, the METNET and MUSEnet committees are ad-hoc in nature. We recommend the creation of a State Telecommunications Advisory Committee to replace the existing ad-hoc committees. This committee

would have the responsibility for advising state agencies on matters related to telecommunications development. Because the MUS represents a large component of long-term telecommunications utilization, due to the potential for distance learning and administrative use, there should be representation from institutions and the Office of the Commissioner. *(Ed. Note: Since this was originally written, the Governor has signed HB 99, creating an Information Processing Advisory Committee, into law.)* Within this context, total education needs should be addressed through a sub-group concerned with technology and distance learning at all levels of education. We recommend that the Office of the Commissioner take the lead in establishing such a sub group which would include representation from the Office of Public Instruction.

2. The State of Montana and the State Telecommunications Advisory Committee should take a strong proactive public policy position in negotiations with telecommunication service providers. The long term development of a state telecommunications infrastructure requires a stable rate structure that recognizes the public service aspects of telecommunications. Telecommunication service providers should develop a Montana rate structure which would allow the state use of the public switched network at rates substantially below the current level. Providers would benefit because of increased traffic and the State would benefit by access to capacity at a more affordable rate, thereby encouraging growth of the network. Should the telecommunications service providers fail to provide special considerations for state public service use, alternatives should be reviewed for allowing additional users and uses to be served via the state telecommunications infrastructure, thereby developing added revenue streams and lower overall rates. For example, defining health care and economic development uses as part of state telecommunications would be one possible approach.



3. The State should identify and clarify state telecommunications revenue streams. The Department of Administration, along with the OCHE and others are already working toward this end. It is recommended that this work continue through the appropriate agencies and through the Advisory Committee. As revenue streams are identified, alternative financing arrangements for telecommunications hardware acquisition should be explored. If revenue streams are stable, some form of bonding for equipment purchasing or upgrading may be an alternative to general fund appropriations.

4. The current rate structure for connectivity and use of telecommunications capacity must be reduced and stabilized. This is an issue of continuing concern among MUS telecommunications users. For telecommunications utilization to work in the long run, for distance learning as well as for administrative applications, the buy-in and early usage costs must be both stable and low. The institutions of higher education must see how using this technology will be financially beneficial in both the short and long run. Very simply put, if the front-end costs are low then volume will provide the funding for the network in the long run. We recommend that either the Advisory Committee factor front-end usage into its financing plans or the university system consider telecommunications capacity costs to be a separate line item in the overall MUS operating budget. We feel that the former option is preferable in view of the need for the MUS to control short term costs. Appendix C contains an example which illustrates the situation confronting the system.

In order not to discourage the use of telecommunications for distance learning and related applications the usage rates should not exceed the amount per hour the institution can derive from state funds and tuition revenue. In the example in Appendix C, where 40 students are enrolled in a 16 week 3 credit course offered at four locations, a rate subsidy of about \$60 per course hour per site would be required, or \$11,600 for the course. If the number of students enrolled in the course



were larger or if there were fewer sites involved, the rate subsidy would decrease and, at some point, would not be needed. The algorithm in Appendix C can serve as a guide for estimating an up-front support level until volume reaches acceptable levels.

5. We recommend a common telecommunications management and operations structure at each college and university, or if that is not possible, the clear designation of a single on-campus official responsible for this area. Currently, unnecessary time and effort can be spent in navigating through the various campus structures and dealing with shared responsibility and authority. The administrator in charge of telecommunications management and operations should be responsible for both administrative telecommunications and distance learning infrastructure. That person should also be the telecommunications contact with the Advisory Committee and the Office of the Commissioner.

6. We recommend that there be a single state-wide, or at least university system-wide telecommunications hardware and software purchasing system. Volume purchases at the state level could realize as much as 20% savings over purchases by single institutions. The State of Montana and/or MUS would also have greater negotiating strength with vendors if there were a structured larger scale purchasing system. Also, an added benefit would be realized through greater standardization of hardware and software. Time, effort and resources are spent when trying to interface non-standard hardware and software.

7. Development of telecommunications options should be viewed in the same context and as a part of development of common systems for the MUS. In this context, we recommend that the interests of various groups, e.g., libraries, continuing education, admissions, etc., be identified and clarified through the Office

of the Commissioner and the Advisory Committee as they relate to both short and long term telecommunications development. One method of doing this would be to create a series of study groups who would be given a deadline for making recommendations for telecommunications usage. These recommendations would be a basis for priorities that would include relevance to the institutional mission, and potential for cost savings or cost avoidance. For example, an administrative services group could be created that would have a one year target to make recommendations for telecommunications applications for system wide physical plant operations or business services operations which could result in cost savings. Similarly, a student services study group could target MUS-wide financial aid or registration procedures utilizing telecommunications which could result in cost savings or avoidance. Other study groups could be created around library services, continuing education, etc. The finite deadline for presenting the recommendations and the prioritization of cost savings and/or avoidance will help to assure that the study groups stay on target.

8. Work should begin on common systems where cost savings can be more immediate. Currently, each campus operates its own admissions and financial aid software system. In addition, the Guaranteed Loan Agency in Helena also maintains student financial aid records. A logical first step would be the development of a single shared admissions and financial aid data network, accessible to each institution. Once a centralized data base is created, there would no longer be the need to maintain different software systems which could result in immediate savings. In addition, there could probably be a reduction in systems support personnel at each campus. This should be reviewed and implemented as soon as possible. Although there are likely to be some development costs, the study team estimates that savings could equal four to five FTE staff in the system.

9. We recommend that an on-going telecommunications training program be established that would provide a pro-active platform for faculty and staff development relative to accepting a greater use of telecommunications technology in college and university administrative services and for educational resource sharing via distance learning. This program could be established using existing expertise located throughout the MUS.

10. Although outside the scope of this report, the largest cost savings which can be accrued by the MUS through telecommunications is in the area of distance learning. The delivery of educational programs via telecommunications can serve to eliminate the duplication of high cost and/or low enrollment programs on the various campuses. In addition, through strategic delivery of educational programs to attendance centers convenient to different target populations, there would be the potential for the MUS to realize greater market penetration. In short, this technology would make it possible over time, should the infrastructure be established, to reduce or eliminate program duplication while at the same time provide greater opportunities to reach a larger audience with most or all programs. We would recommend that the State of Montana and the OCHE continue to follow the general guidelines presented in the "Lambda" report, updating and revising as necessary because of technology changes, and to continue to target the development of a distance learning infrastructure.

In summary, this set of recommendations addresses two areas: First, recommendations dealing with the long term development of telecommunications policy and activities within the State and the System. Substantial long term savings and/or cost avoidance will result as these recommendations are implemented. Second, a set of recommendations dealing with short term telecommunications activities which, while not producing substantial initial savings, position the MUS for achieving increased efficiency via the use of telecommunications.

## **5.0 Recommendations Related to Specific Budget Programs:**

In the following sections we have provided brief functional descriptions of programs within major administrative areas including:

- Academic Support;
- Student Services;
- Institutional Support; and
- Plant Operation and Maintenance.

Generally, most dollars expended in Academic Support functions are related to library services. Academic administration, including dean's offices, and instructional department support comprise the next largest proportion of costs in this administrative area. Other functions in this area include museums/galleries, educational media and audio-visual services.

In Student Services, most dollars are expended in support of intercollegiate athletic programs. Other functions in this area include student services administration, counseling and career guidance services, financial aid administration, admissions and student records administration.

The highest proportion of dollars expended in Institutional Support functions include costs for general administration (human resources management, central mail services, university communications, institutional research, sponsored programs, etc.). The next highest expenditures are in fiscal operations including the controller's office, purchasing, and budget. Other functional areas include executive management, public relations and development.

Plant Operations and Maintenance functions include physical plant administration, building maintenance and custodial services. Most expenditures in this area are attributable to utilities costs. The next highest cost is for custodial



services. In this area, one time costs for major repairs and/or renovation can significantly impact annual expenditures.

For the purposes of this study, it is important to evaluate the change in administrative costs over time in relation to the change in workload (student FTE) during the same period. Exhibit 5-1 presents an analysis of the annual change in FTE student enrollment over the period 1987 to 1992. This chart reveals no significant trend in enrollment for any institution over the period, with the exception of the University of Montana, which grew approximately 18 percent due, in large part, to an aggressive marketing and recruitment campaign over the past few years. 1992 FTE student enrollment for all institutions was 26,353 FTE, 4.9 percent above 1987 enrollment of 25,127 FTE students.

**Exhibit 5-1**  
**Change in Student FTE Enrollment**  
**1987 to 1992**

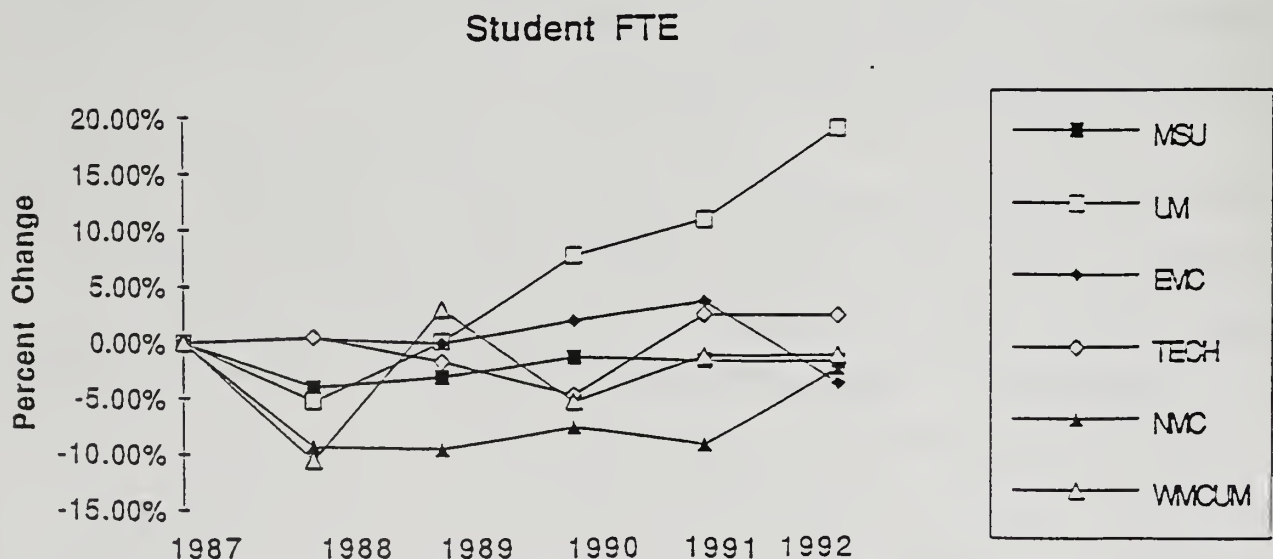


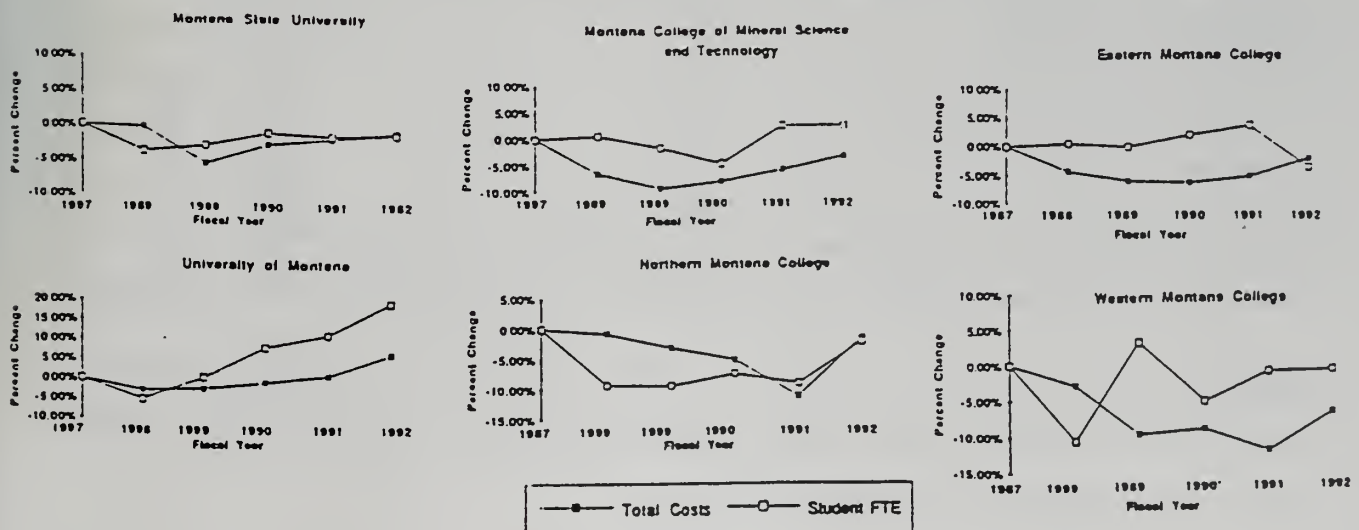


Exhibit 5-2 presents comparisons of the annual change in total cost (indexed to constant 1987 dollars) to the annual change in FTE students over the period 1987 to 1992 for each four-year institution. Constant dollar values are derived using the Higher Education Price Index (HEPI). This nationally recognized index is developed based on costs for a "market basket" of items typically required to be purchased by higher education institutions. During this period, the HEPI index yields a slightly higher discount factor (three percent) than would result from using the Consumer Price Index (CPI) but is generally deemed to be more reflective of goods and services used by higher education.

It is clear from these analyses that actual administrative costs have not changed disproportionately to the change in enrollment. In fact, while the net increase in enrollments was 4.9 percent, the net constant dollar change in administrative costs between 1987 and 1992 was less than one half of one percent (.43 percent).

The following sections review each major functional area. Each section is introduced with an analysis of the expenditures for each program at each university, displaying annual change over time since 1987. Included in the analysis is a chart of the enrollment change during the same period and other related information.

Exhibit 5-2  
Analysis of Administrative Cost/Workload (Student FTE)  
Annual Percent Change 1987-1992



## 5.1 Academic Support

Total Montana expenditures for academic support functions in FY 1992 was \$16,264,733. Exhibit 5-3 presents an analysis of the annual change in costs for Academic Support services, excluding Libraries, from 1987 to 1992. As in the case of overall administrative support services costs, expenditures in this category show no significant increase in constant dollar terms. The net change in constant dollar expenditures exhibited in this category was 1.1 percent between 1987 and 1992. Exhibit 5-4 compares the costs per FTE student for academic support services at each four-year institution and their respective peer colleges for FY 1991. Library expenditures of the peers could not be separated and are therefore included in the comparisons.

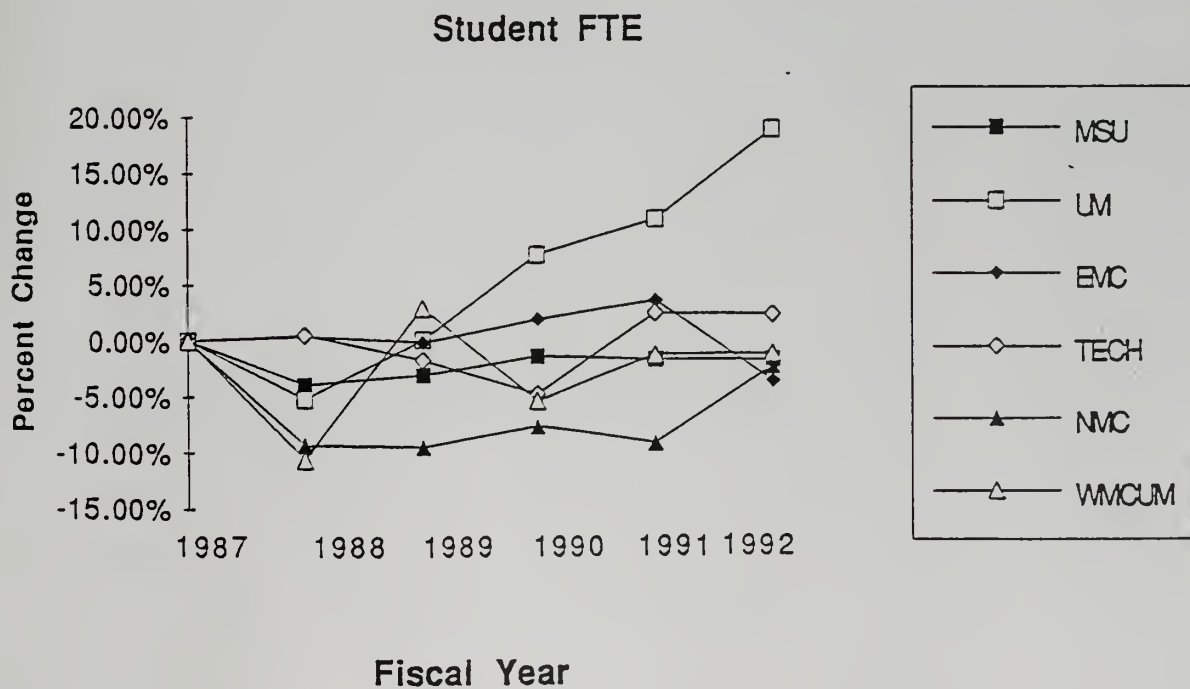
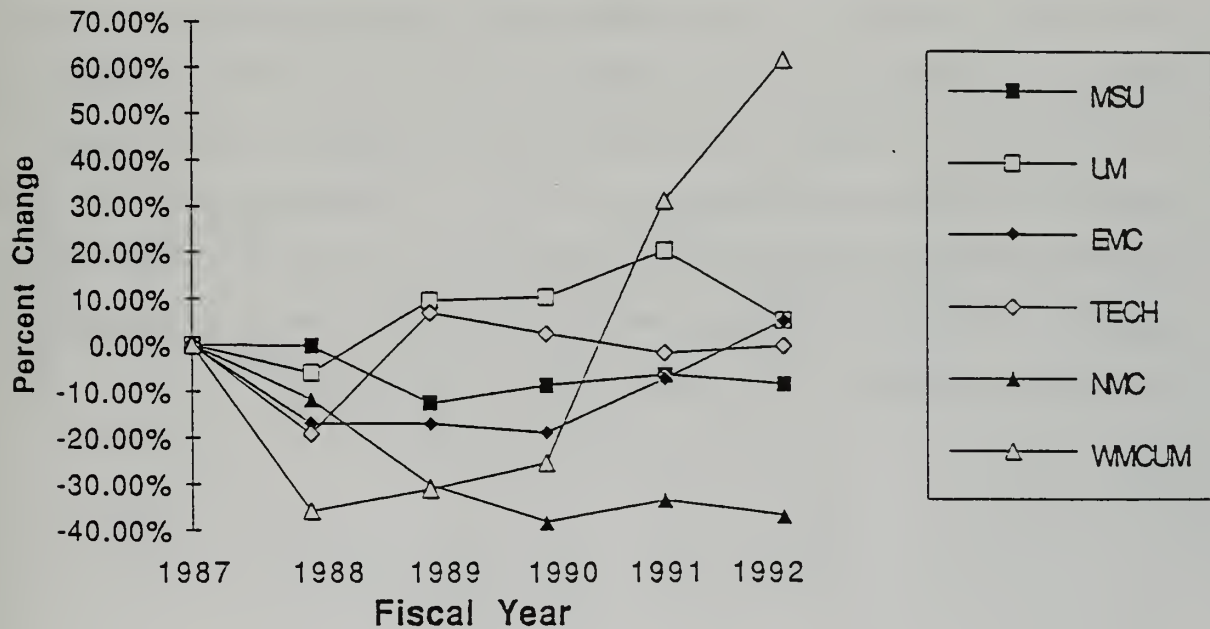
### Exhibit 5-4

#### Comparison of Academic Support Costs Among Institutions Fiscal Year 1991 Expenditure per FTE Student

	MONTANA INSTITUTIONS	PEER INSTITUTIONS
University of Montana	\$647	\$813
Montana State University	615	813
Eastern Montana College	544	609
Montana Tech	421	837
Northern Montana Coll.	455	620
Western Montana Coll.	319	588

Costs for academic support services at Montana institutions are lower than the peer institutions in every case. Site visits to the universities tended to confirm that costs in this administrative area are reasonably low.

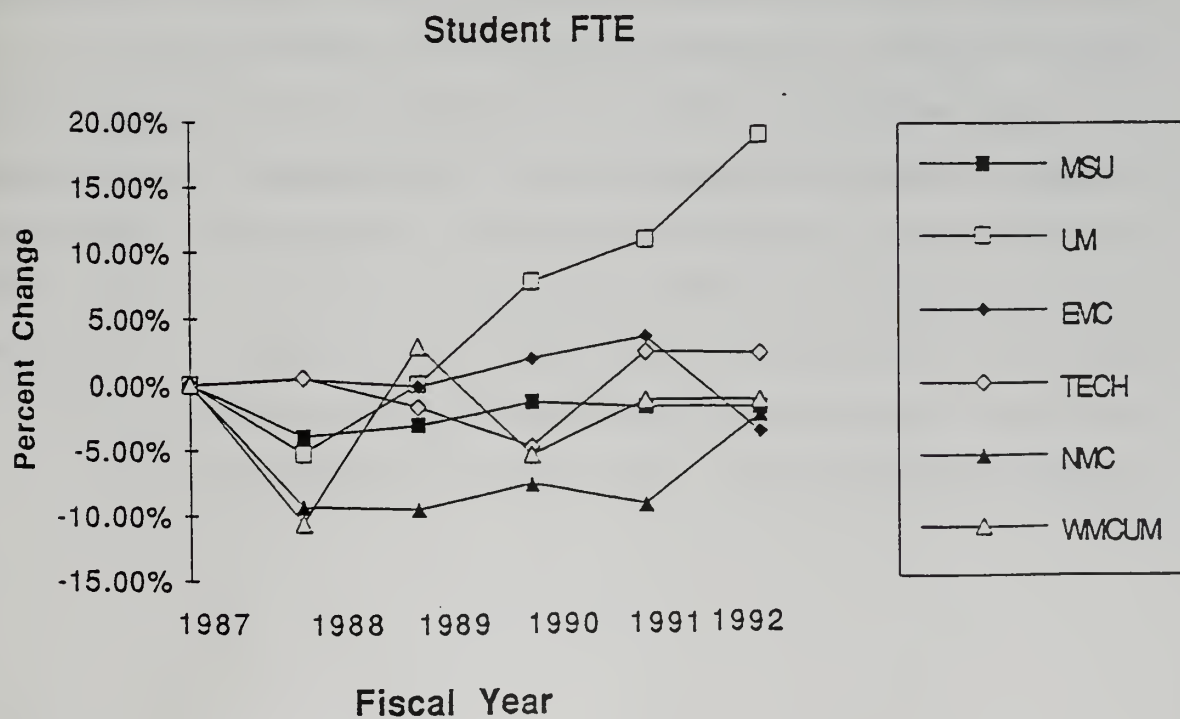
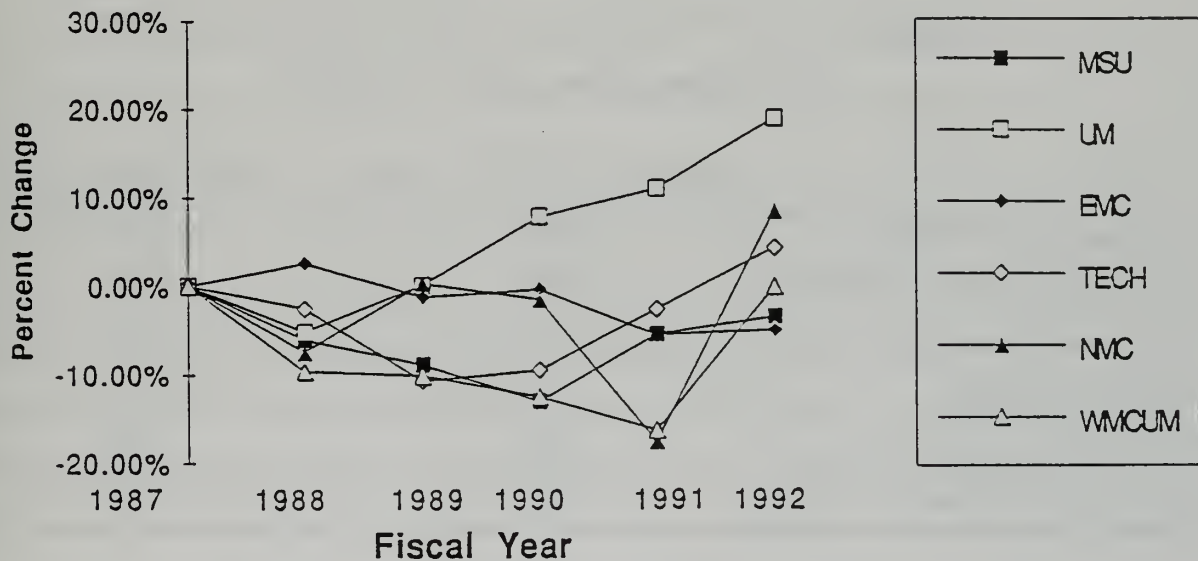
**Exhibit 5-3**  
**Academic Support**  
**Cost Analysis 1987-1992**



## 5.2 Student Services

Total Montana expenditures for student services functions in 1992 was \$14,018,645. Exhibit 5-5 on the following page presents an analysis of annual changes in student services costs between FY 1987 and FY 1992 in comparison to annual changes in student FTE for each Montana institution. As in the case of overall administrative costs presented in Exhibit 5-2, neither constant dollar costs for student services nor enrollment grew substantially over the period. The overall net constant dollar change in student services costs over the period was less than one percent (.87 percent).

**Exhibit 5-5**  
**Student Services**  
**Cost Analysis 1987-1992**





The table below presents a comparison of 1991 costs per FTE student among Montana institutions and with their respective peer institutions:

### Exhibit 5-6

#### Comparison of Student Services Costs Among Institutions 1991 Expenditures per FTE Student

	MONTANA INSTITUTIONS	PEER INSTITUTIONS
University of Montana	\$403	\$393
Montana State University	483	393
Eastern Montana College	492	397
Montana Tech	799	423
Northern Montana Coll.	550	537
Western Montana Coll.	678	591

Average student services costs among Montana institutions is generally higher than peer institutions. Without the detail budget data it is difficult to identify where costs differ. However, one area which seems fully supported at all Montana schools which may not be supported at other institutions is intercollegiate athletics. Montana institutions currently spend nine to ten million dollars annually for intercollegiate athletics. More than one half of this is direct state support. If most of the difference between Montana and its peers, identified above for student services, is in athletic programs, it is estimated that costs could be reduced by as much as \$2,000,000 (\$1,000,000 from UM and MSU and \$1,000,000 from the other colleges) bringing the MUS institutions to the average of the peer institutions. In interviews with college representatives, reducing athletic programs was the most often suggested cost savings option. Another option to reductions would be to

supplant state support with revenue from events by increasing ticket prices and/or vending receipts or establishing athletic fees. Either way, this appears to represent a significant opportunity for savings which is worthy of further review and evaluation.

Another major student services cost reduction opportunity is reducing the number of positions dedicated to recruiting students. The dedicated individuals involved in this activity appear to be working at cross purposes with initiatives outlined in recent reports, e.g., "Commitment to Quality", which suggest approaches to limit enrollment. At the same time, New Student Services at UM, MSU and Admissions activities at Montana Tech are dedicating substantial resources to promoting a demand for services through marketing and recruitment. UM for example, has set up an 800 number and hires staff to conduct telemarketing. In addition, representatives from all three colleges travel extensively around the country to recruit out of state students. At the same time that existing students must pay for their course schedule, extensive recruiting brochures and materials are sent to prospective students. It is estimated that up to seven of the full-time equivalent staff dedicated to these functions could be eliminated by focusing activity on providing information about their institutions to resident students and in responding to requests for information. Total potential savings, including reduced marketing expenses, exceed \$300,000 per year. It should be understood that this would still leave approximately one-half of existing staff to provide informational services to Montana high school graduates and others expressing an interest in attending a Montana college or university.

### 5.3 Institutional Support

Total Montana expenditures for institutional support functions in 1992 was \$13,922,282. Exhibit 5-7 on the following page presents an analysis of the annual change in constant 1987 dollar costs for institutional support services among Montana colleges in comparison to the annual change in FTE student enrollment. The net constant dollar change in costs between 1987 and 1992 was 1.7 percent. In reviewing the information, it should be kept in mind that the Institutional Support program is one in which there is extensive designated fund income. Therefore the cautions about the peer data noted earlier in the report should be kept in mind.

In the table below, institutional support services costs are compared among Montana colleges and their respective peer institutions:

#### Exhibit 5-8

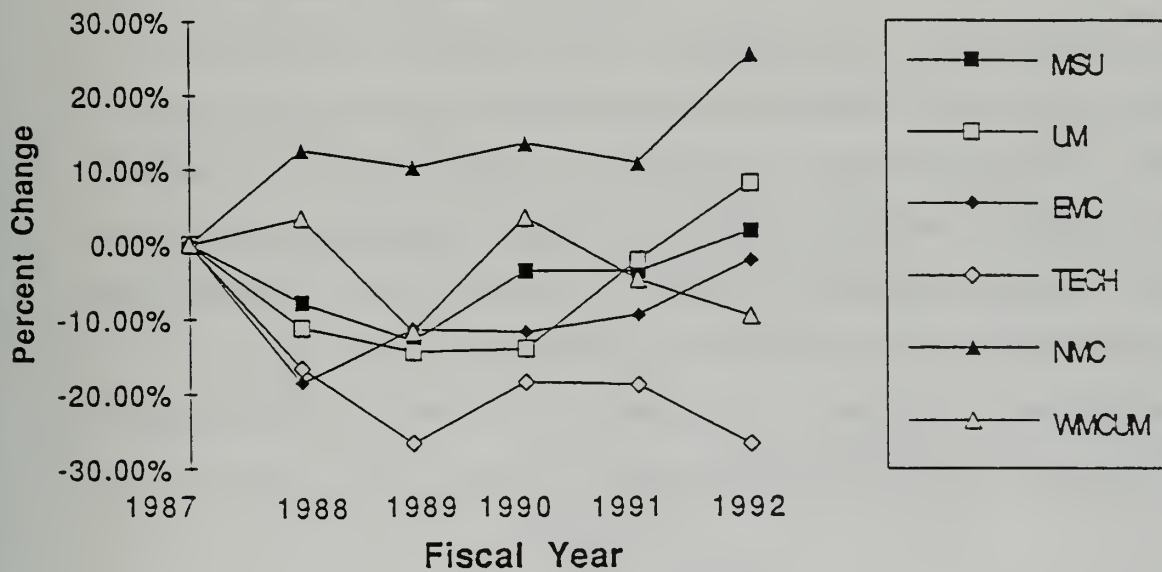
#### Comparison of Institutional Support Costs Among Institutions

#### 1991 Costs per FTE Student

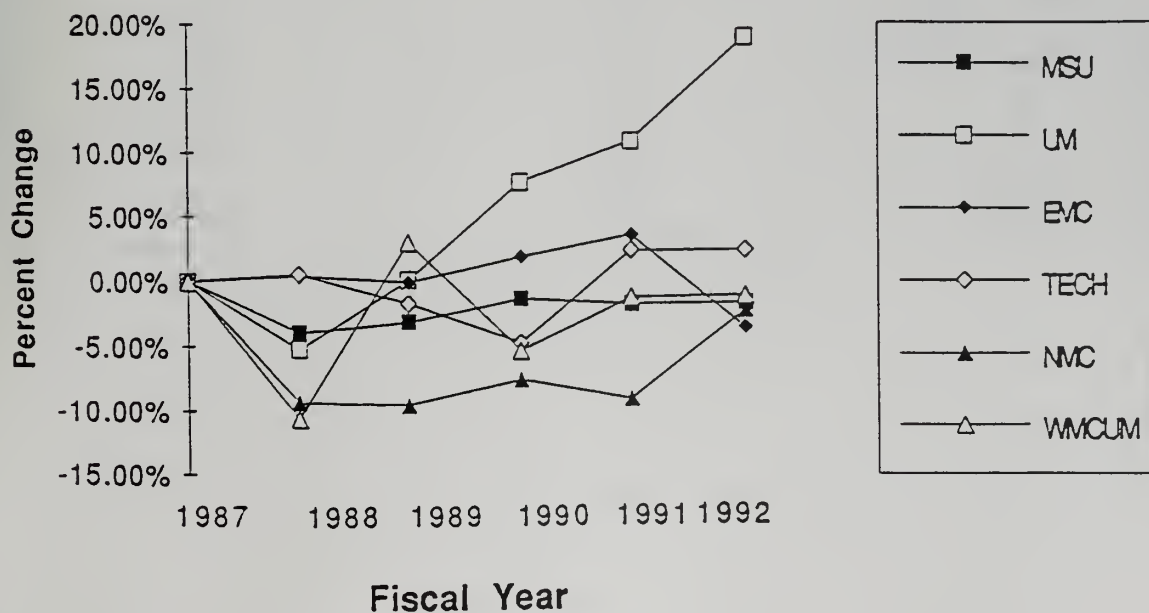
	MONTANA INSTITUTIONS	PEER INSTITUTIONS
University of Montana	\$436	\$764
Montana State University	444	764
Eastern Montana College	543	675
Montana Tech	565	1054
Northern Montana Coll.	643	877
Western Montana Coll.	716	737

In every case, Montana colleges are lower than peer institutions in institutional support costs per FTE student.

**Exhibit 5-7**  
**Institutional Support**  
**Cost Analysis 1987-1992**



**Student FTE**





#### 5.4 Plant Operation and Maintenance

Total Montana expenditures for plant maintenance and operations in 1992 was \$17,913,485. Exhibit 5-9 on the following page presents an analysis of the annual change in the costs of plant operation and maintenance. As with other administrative costs, plant operation and maintenance costs, in constant 1987 dollars, have changed little over the period, dropping slightly overall (1.5 percent). Although a comparison with gross square feet of space over time would be more relevant than change in enrollment, the data on gross square feet maintained from state fund sources were not available for the years under review.

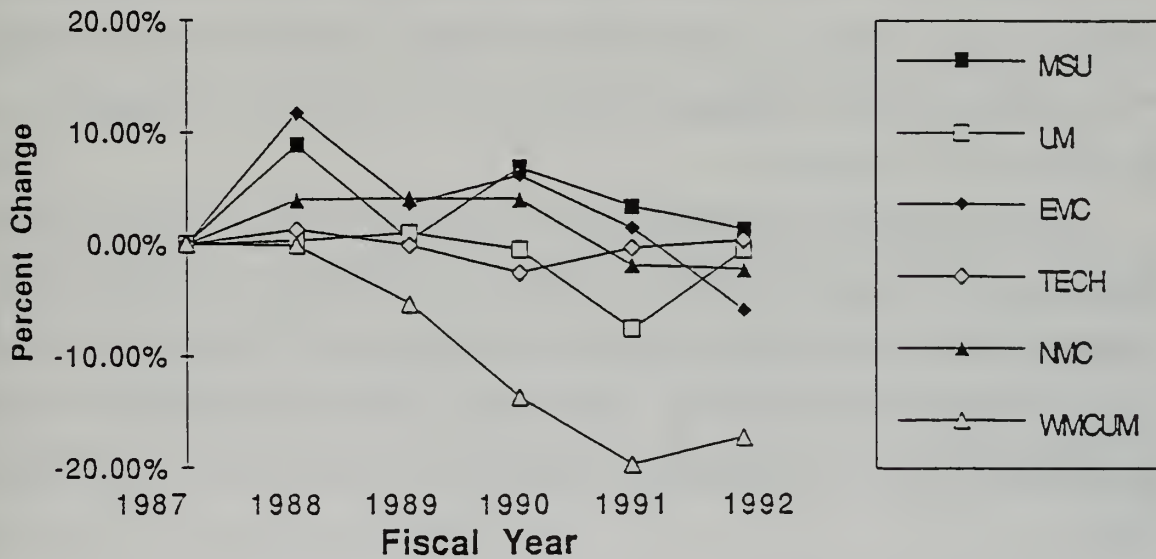
The table below compares plant operation and maintenance costs among Montana units and with their peer institutions for fiscal year 1991.

#### Exhibit 5-10

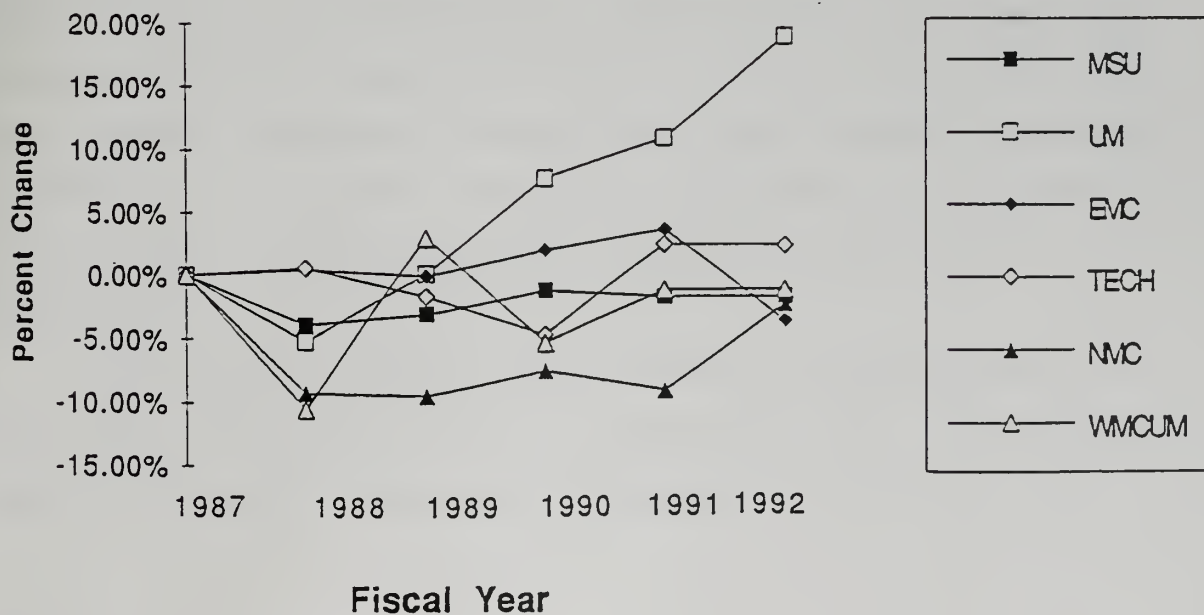
#### Comparison of Plant Operation and Maintenance Costs Among Institutions 1991 Costs per FTE Students

	MONTANA INSTITUTIONS	PEER INSTITUTIONS
University of Montana	\$601	\$935
Montana State University	637	935
Eastern Montana College	833	692
Montana Tech	1023	1351
Northern Montana Coll.	762	755
Western Montana Coll.	758	981

**Exhibit 5-9**  
**Plant Operations and Maintenance**  
**Cost Analysis 1987-1992**



**Student FTE**



The Montana institutions have demonstrated an ability to keep their physical plant costs under control. Lower costs in this area could be misleading however unless one monitors the state of building maintenance and whether deferred maintenance is increasing or being reduced. Through the interviews conducted during this study, it became evident that information about the condition of space, extent of deferred maintenance and utilization of both general university and auxiliary space is incomplete.

The physical assets of the university system represent important resources to the State of Montana and a data base should be established and maintained to ensure that they are used and maintained effectively and efficiently. Although there would be a cost to establishing the basic data, it would be outweighed by avoidance of major capital costs through proper maintenance and improved use of existing space.

## **5.5 Summary of Institutional Site Visits:**

In this section's analyses and in the earlier sections of this report we have concluded that the size and costs of administration in the MUS have not changed disproportionately to enrollment growth and are below most peer institutions and national averages. The breadth and depth of our analysis make this conclusion compelling.

As part of our study, we visited every institution in the MUS and met with more than 125 individuals to learn about programs and the status of operations and workload. The interviews included frank questions about how each office would respond if faced with a mandate to reduce costs. Since more than seventy percent of operating costs are for personnel, we specifically asked what positions they would eliminate and what impact would result.

In addition to our interviews, we sought to observe the general operating environment and conditions on each campus. Site visits were conducted in December and January, prior to completing our review of the peer data. Thus, visits were conducted without prejudice regarding the status of the size and/or costs of administration in MUS institutions.

Our findings from site visits confirmed subsequent peer review conclusions that, overall, MUS units are conservatively staffed. Functional activities in each institution often had only one or two professionals with one or two support staff. Given the distinct differentiation of function within higher education, it was clear that staff were busy and committed to their work. It is important to note, however, that our scope of work did not include detailed operations analysis or work measurement.

In response to our questions about cost savings and staff reduction opportunities, most indicated that such reductions would have a commensurate impact on service levels. Although such a response is typical in this type of



evaluation, our sense was that in most cases, cost reductions would adversely impact services. This is not to say that cost reductions are impossible but that, in our opinion, there is very little "fat" to trim. Thus, although we have identified a few positions which may not be needed, there is no gold mine of administrative savings which can be tapped without significant impact on services.

In earlier sections we have discussed where we believe the greatest potential savings opportunities exist. They include:

- Four year institutions located in the same city as technical centers providing key administrative services thereby reducing administrative staffing requirements at the centers without increasing staff at the four year institutions. Although it will be argued that the workload associated with the 300 to 600 students per center cannot be accommodated, we believe the colleges and university can, in the long term, absorb these functions with existing resources.
- Reducing state support for intercollegiate athletics to a level more commensurate with the peer institutions. Although politically sensitive, these reductions will have the least impact on the level and quality of instruction that can be offered.
- Eliminating college and university recruiting and marketing efforts while still providing necessary information to prospective students. Current efforts contradict existing state fiscal circumstances and policies designed to control enrollment.
- Consolidation of administrative functions at designated institutions through "affiliation agreements" to reduce costs and take advantage of economies of scale and implement common administrative systems at those sites or, in certain instances, through the Office of the Commissioner.
- Taking advantage of technology in automation and telecommunications to reduce costs of both administration and instruction.
- Developing a more fair and equitable means of distributing grant and contract research overhead to recognize added workload due to growth in research volume.
- Elimination of the RERS system while assuring accurate position reporting.

In addition to the above findings, through our site visits we identified other selected opportunities where the potential exists to reduce costs. These include:

- Several instances were noted where positions have been established for a singular, time-limited purpose which has been accomplished in whole or in part. These circumstances set up a classic scenario for "absorbing" the position into a continuing financial liability by redirecting the incumbent into a related or totally different role. There always is an "essential need" to be met. This scenario is particularly common when new automated systems (designed to increase both service and efficiency) are implemented or for major programmatic or administrative transitions such as the conversion to the semester system. We recommend that all such positions be carefully examined and considered for termination prior to making expenditure reductions which will reduce services to students.
- A few instances of functional duplication and/or overlap were brought to our attention which offer opportunities for efficiency improvements. For example, at MSU, it was suggested that the processing of claims and accounting transactions, currently handled by positions in the extension services and grant and contract accounting could be handled by existing staff in the central accounting office. At the UM, a small plant maintenance unit serves residence halls and auxiliary facilities. It was suggested that physical plant services could be more efficiently provided through the main plant services operation potentially saving one position through improved scheduling of personnel.

It is likely that there may be a few additional examples which could be uncovered by a full-scale detailed operations review. However, as noted earlier, the potential for significant savings without reductions in service is extremely limited.



## **APPENDIX A**

### **MUS INTERVIEW GUIDE**





## MUS INTERVIEW GUIDE

1. What are the primary functions of your Department?
2. How have they (functions) changed in the past five years?
3. How has staffing changed in the past five years?
4. What factors generate workload in your program?
5. Have you measured changes in workload over time?
6. How do you expect your workload to change in the future?
7. What suggestions do you have for improving efficiencies in your own department?
8. What would you stop doing or change if you were faced with significant mandatory budget reductions? Would this result in staffing reductions?
9. If the University was faced with significant mandatory budget cuts, where do you think there is the greatest potential for efficiency improvement?
10. What functions, including your own program, might logically be consolidated with those of other institutions or be otherwise centralized?
11. Are there any workload demand which distract you and/or your staff from performing your primary functions? (Get to measurable response) i.e. Committee meetings, request from system, special reports.

12. Are there administrative policies or procedures which constrain your efficiency, i.e. purchasing regulations - please explain.
13. Do you receive or prepare reports which are unnecessary? Please specify.
14. Are you making the most of available technology?
15. What administrative functions at your institution are being accomplished very efficiently and effectively?
16. Are you aware of exemplary programs within the MUS?
17. We will be comparing your institution's financial and staffing data to your traditional peer institutions. Are you familiar with your programs counterpart in any of these institutions?  
  
If yes, how do you feel they are similar or different from your program?
18. Do you have formal goals and objectives?
19. Do objectives measure both efficiency and effectiveness?
20. Are you achieving your objectives? If not, why not?

## **APPENDIX B**

### **MUS SURVEY OF PEER TUITION AND FEES**







# MONTANA UNIVERSITY SYSTEM

AND POSTSECONDARY EDUCATION

*MONTANA UNIVERSITY SYSTEM  
SURVEY OF PEER TUITION AND FEES  
FEBRUARY 8, 1993*

## OFFICE OF THE COMMISSIONER OF HIGHER EDUCATION

Helena, Montana

### Units of the Montana University System

University of Montana, Missoula  
Montana State University, Bozeman  
Eastern Montana College, Billings

Northern Montana College, Havre  
Western Montana College, Dillon  
Montana College of Mineral Science & Technology, Butte

*House Bill 2 of the 52nd Legislature, Special Session of July 1992, contained the following language:*

*It is the intent of the 52nd Legislature that the Board of Regents examine all revenue sources, including fees from students and other revenue sources not presently recognized within the formula funding of the Montana University System. It is the further intent that the Board of Regents utilize all possible economies and methods that will preserve access to and not limit enrollment of the units of the Montana University System. More specifically:*

*(1) Before any major downsizing of student populations, there must be an independent evaluation of all student fees not within formula funding to determine if said fees should be placed within the formula. If more fees are appropriately placed within the formula, University Units may be much closer to peer averages and there may be no need to reduce the current student population levels. The evaluation must be given to appropriate legislative committees.*

*This report is the University System's response to this Legislative mandate. Although the analysis was conducted by the Office of the Commissioner of Higher Education, the following actions are an attempt to provide the "independence" the Legislature seeks:*

- 1. Both the offices of the Legislative Fiscal Analyst and the Governors' Office of Budget and Program Planning were consulted prior to mailing the survey document. See Appendix A.*
- 2. The Office of the Legislative Auditor has conducted a review of both the 1991 Peer Expenditure Study and the 1992 Peer Tuition Survey. Their response is contained in Appendix B.*
- 3. Copies of all peer responses and the working papers from the Office of the Commissioner of Higher Education will be provided to analysts from the offices of the Fiscal Analyst and the Office of Budget and Program Planning.*

## **MONTANA UNIVERSITY SYSTEM SURVEY OF PEER TUITION AND FEES**

*Table 1 on the facing page presents the results of the Peer Tuition and Fees Survey. Of the 25 peers contacted (Northern Montana College and Western Montana College-UM share a peer), only one failed to respond, New Mexico State University. However, Eastern Washington University's data was significantly incomplete.*

*Almost all of Montana's peers appropriate tuition but do not appropriate fees which is similar to Montana. Only two responders, the University of Wyoming and Northern Arizona indicated that their fees are also appropriated.*

*Other significant observations about the results include:*

- While only 4 of the peer institutions used the term "designated" in their responses, an additional 16 peer institutions deposit fees into a non-appropriated current unrestricted subfund. As is indicated in the Legislative Auditor's review, this non-appropriated activity by the peers is then similar to the Montana University System's designated subfund.*
- The most obvious fees which Montana charges but most of the peers do not are the computer and equipment fees. Only 5 peers charge a separate computer fee and only 2 peers charge an additional equipment fee.*
- 15 of Montana's peers deposit additional instructional fees into a non-appropriated account as do Montana's institutions.*
- 15 of Montana's peers charge an athletic fee which Montana students do not pay.*
- 8 of Montana's peers charge a "general program" or similarly named fee which is used to defray administrative expenses.*

# MONTANA UNIVERSITY SYSTEM SURVEY OF PEER TUITION & FEES

TABLE 1

INSTITUTION	TUITION	FEES	BUILDING	COMPUTER	EQUIPMENT	STUD ACTIV	HEALTH	INSTRUCT	ATHLETIC	GENRL PROG	LIBRARY	FIN AID
UNIVERSITY MT/MONTANA STATE:												
NEW MEXICO STATE UNIVERSITY	CU-Y		PLANT	PLANT	PLANT	CUD	AUX	CUD				
NORTH DAKOTA STATE UNIVERSITY	CU-Y		PLANT			CU	CU					
NORTHERN ARIZONA UNIVERSITY	CU, CUD-Y		PLANT-Y				AGENCY-Y	CUD-Y				REST-Y
UNIVERSITY OF IDAHO	CU-Y		PLANT			CU						
UNIVERSITY OF NEVADA, RENO	CU-D-Y		PLANT			CUD	CUD		CUD	AUX, CUD		
UNIVERSITY OF NORTH DAKOTA	C-Y		PLANT			AGENCY	C	AGENCY				
UNIVERSITY OF WYOMING	CU-Y		CU-Y	CU-Y		CU-Y	CU-Y	CU-Y	CU-Y	CU-Y		CU-Y
UTAH STATE UNIVERSITY	CU-Y		PLANT	REST		AGENCY	AUX	CU, REST	AUX	REST	REST	
EASTERN MONTANA COLLEGE:												
EASTERN NEW MEXICO UNIVERSITY	CU-Y		PLANT	PLANT	PLANT	CUD	AUX	CUD				
EASTERN WASHINGTON UNIVERSITY	CU		PLANT			C	AUX	C	AUX			
MINOT STATE UNIVERSITY, ND	CU-Y		CU-Y			AUX	CUD	CUD	AUX			
NORTH STATE COLLEGE, SD	CU-Y		PLANT			CU	CU	CU	AUX			
UNIVERSITY OF SOUTHERN COLORADO	CU-Y					CU	CU	CU		CU		
SOUTHERN OREGON STATE COLLEGE	CU-Y		PLANT-Y			CU	AUX	CU	CU			
MONTANA TECH:												
COLORADO SCHOOL OF MINES	CU-Y		PLANT	PLANT	PLANT	CUD	AUX	CUD				
SOUTH DAKOTA SCHOOL OF MINES	CU-Y					CU	AUX	CU	AUX			
NEW MEXICO INST OF MINING & TECH	CU				CU	CU	CU	CU	CU	CU		
NORTHERN MONTANA COLLEGE:												
ADAMS STATE COLLEGE, CO	CU-Y		PLANT	PLANT	PLANT	CUD	AUX	CUD				
OREGON INSTITUTE OF TECH	CU-Y		CU	CU	CU	CU	CU	CU	CU			
LEWIS-CLARK STATE COLLEGE, IDAHO	CU-Y		PLANT			AUX	AUX		AUX			
WESTERN NEW MEXICO UNIVERSITY	CU		PLANT			C	AUX	C	AUX	CU-Y		CU
WESTERN MT COLLEGE-UM:												
DAKOTA STATE, SD	CU-Y		PLANT	PLANT	PLANT	CUD	AUX	CUD				
DICKINSON STATE UNIVERSITY, ND	CU			CU		CU	CU	CU		CU		
MAYVILLE STATE UNIVERSITY, ND	CU-Y			CU		CU	CU	CU				
VALLEY CITY STATE UNIVERSITY, ND	CU-Y					CU	CU	C	CU			
WESTERN NEW MEXICO UNIVERSITY	CU		PLANT			C	AUX	C	C			

## LEGEND:

Y - INDICATES THE FEE IS APPROPRIATED  
 CU - CURRENT UNRESTRICTED FUND  
 CUD - CURRENT UNRESTRICTED-DESIGNATED SUBFUND  
 C - CURRENT FUND  
 REST - CURRENT RESTRICTED FUND  
 AUX - CURRENT AUXILIARY FUND  
 PLANT - PLANT FUND  
 AGENCY - AGENCY FUND



*The results of the Peer Tuition Survey were compared to the results of the 1991 Peer Expenditure Study. A worst-case scenario was then developed. If any peer institution reported fees in their current unrestricted non-appropriated fund which may have been included in the 1991 expenditure study, those amounts were adjusted. In order to present a conservative approach, any instances where the tuition survey was higher than the expenditure study were ignored. The table on the following pages indicates the results of these adjustments.*



# MONTANA UNIVERSITY SYSTEM FY91 PEER DATA

TOTAL EXPENDITURES PER FTE (LESS RESEARCH AND PUBLIC SERVICE)

MONTANA STATE UNIVERSITY/UNIVERSITY OF MONTANA						
UNIVERSITY	TOTAL EXPENDITURES	STUDENT FTE	TOTAL EXP PER FTE	ADJUSTED TOTAL EXPENDITURES	STUDENT FTE	ADJUSTED EXP PER FTE
UTAH STATE UNIVERSITY	72,123,320	11,174.38	6,454	71,896,359	11,174.38	6,434
NORTHERN ARIZONA	87,890,121	14,873.13	5,909	87,890,121	14,873.13	5,909
UNIVERSITY OF NORTH DAKOTA	53,124,176	10,077.40	5,272	53,124,176	10,077.40	5,272
NORTH DAKOTA STATE UNIVERSITY	43,442,544	7,538.97	5,762	43,442,544	7,538.97	5,762
NEW MEXICO STATE UNIVERSITY	77,504,747	12,131.49	6,389	77,504,747	12,131.49	6,389
UNIVERSITY OF NEVADA	56,833,650	7,571.68	7,506	56,833,650	7,571.68	7,506
UNIVERSITY OF WYOMING	95,148,200	10,749.60	8,851	93,223,875	10,749.60	8,672
UNIVERSITY OF IDAHO	60,250,942	9,237.39	6,523	60,250,942	9,237.39	6,523
AVERAGE			6,583			6,558
MONTANA STATE UNIVERSITY	49,305,770	9,670.92	5,098	49,305,770	9,670.92	5,098
UNIVERSITY OF MONTANA	41,474,671	8,857.23	4,683	41,474,671	8,857.23	4,683
PERCENT OF PEERS MONTANA STATE UNIVERSITY UNIVERSITY OF MONTANA			77% 71%			78% 71%

EASTERN MONTANA COLLEGE						
UNIVERSITY	TOTAL EXPENDITURES	STUDENT FTE	TOTAL EXP PER FTE	ADJUSTED TOTAL EXPENDITURES	STUDENT FTE	ADJUSTED EXP PER FTE
MINOT STATE UNIVERSITY	13,079,814	2,457.39	5,323	13,079,814	2,457.39	5,323
S OREGON ST COLLEGE	22,345,213	3,838.89	5,821	20,650,541	3,838.89	5,379
U OF S COLORADO	18,412,599	3,948.13	4,664	18,412,599	3,948.13	4,664
NORTHERN STATE U	8,602,470	2,447.13	3,515	8,602,470	2,447.13	3,515
E WASHINGTON U	53,142,126	7,410.00	7,172	52,442,126	7,410.00	7,077
E NEW MEXICO U	17,863,956	3,350.89	5,331	17,185,058	3,350.89	5,129
AVERAGE			5,304			5,181
EASTERN MONTANA COLLEGE	15,477,883	3,423.00	4,522	15,477,883	3,423.00	4,522
PERCENT OF PEERS			85%			87%

# MONTANA UNIVERSITY SYSTEM FY91 PEER DATA

TOTAL EXPENDITURES PER FTE (LESS RESEARCH AND PUBLIC SERVICE)

MONTANA TECH						
UNIVERSITY	TOTAL EXPENDITURES	STUDENT FTE	TOTAL EXP PER FTE	ADJUSTED TOTAL EXPENDITURES	STUDENT FTE	ADJUSTED EXP PER FTE
SOUTH DAKOTA SCHOOL OF MINES	9,058,449	1,839.41	4,925	9,058,449	1,839.41	4,925
NEW MEXICO INSTIT OF MINING	11,229,004	1,088.56	10,315	11,120,587	1,088.56	10,216
COLORADO SCHOOL OF MINES	23,170,856	2,565.86	9,030	23,031,307	2,565.86	8,976
AVERAGE			8,090			8,039
DISCOUNT FOR GRAD SCHOOL COMPONENT - 94%			7,605			7,557
MONTANA TECH	9,751,651	1,612.00	6,049	9,751,651	1,612.00	6,049
PERCENT OF PEERS			80%			80%

NORTHERN MONTANA COLLEGE						
UNIVERSITY	TOTAL EXPENDITURES	STUDENT FTE	TOTAL EXP PER FTE	ADJUSTED TOTAL EXPENDITURES	STUDENT FTE	ADJUSTED EXP PER FTE
ADAMS STATE COLLEGE	11,078,793	2,445.60	4,530	11,032,178	2,445.60	4,511
WESTERN NEW MEXICO	10,835,945	1,750.32	6,191	10,547,246	1,750.32	6,026
LEWIS CLARK STATE COLLEGE	10,786,520	2,100.93	5,134	10,195,984	2,100.93	4,853
OREGON INSTIT TECHNOLOGY	17,470,965	2,427.29	7,198	16,818,319	2,427.29	6,929
AVERAGE			5,763			5,580
NORTHERN MONTANA COLLEGE	8,354,509	1,571.06	5,318	8,354,509	1,571.06	5,318
PERCENT OF PEERS			92%			95%

WESTERN MONTANA COLLEGE						
UNIVERSITY	TOTAL EXPENDITURES	STUDENT FTE	TOTAL EXP PER FTE	ADJUSTED TOTAL EXPENDITURES	STUDENT FTE	ADJUSTED EXP PER FTE
DICKINSON STATE	7,140,650	1,356.70	5,263	6,696,820	1,356.70	4,936
DAKOTA STATE	4,995,802	883.10	5,657	4,995,802	883.10	5,657
MAYVILLE STATE	4,325,261	770.44	5,614	4,123,889	770.44	5,353
VALLEY CITY	5,508,533	959.58	5,741	5,508,533	959.58	5,741
WESTERN NEW MEXICO	10,835,945	1,750	6,191	10,547,246	1,750.32	6,026
AVERAGE			5,693			5,542
WESTERN MONTANA COLLEGE	4,735,790	915.00	5,176	4,735,790	915.00	5,176
PERCENT OF PEERS			91%			93%

*Because the majority of Montana's peers do not charge the computer or equipment fees Montana's results may be somewhat skewed. Since the equipment fee was not assessed until 1992, the computer fee was added to Montana's expenditures. The results are portrayed on the following pages.*



# MONTANA UNIVERSITY SYSTEM FY91 PEER DATA

TOTAL EXPENDITURES PER FTE (LESS RESEARCH AND PUBLIC SERVICE)

MONTANA TECH						
UNIVERSITY	TOTAL EXPENDITURES	STUDENT FTE	TOTAL EXP PER FTE	ADJUSTED TOTAL EXPENDITURES	STUDENT FTE	ADJUSTED EXP PER FTE
SOUTH DAKOTA SCHOOL OF MINES	9,058,449	1,839.41	4,925	9,058,449	1,839.41	4,925
NEW MEXICO INSTIT OF MINING	11,229,004	1,088.56	10,315	11,120,587	1,088.56	10,216
COLORADO SCHOOL OF MINES	23,170,856	2,565.86	9,030	23,031,307	2,565.86	8,976
AVERAGE			8,090			8,039
DISCOUNT FOR GRAD SCHOOL COMPONENT - 94%			7,605			7,557
MONTANA TECH	9,751,651	1,612.00	6,049	9,809,684	1,612.00	6,085
PERCENT OF PEERS			80%			81%

NORTHERN MONTANA COLLEGE						
UNIVERSITY	TOTAL EXPENDITURES	STUDENT FTE	TOTAL EXP PER FTE	ADJUSTED TOTAL EXPENDITURES	STUDENT FTE	ADJUSTED EXP PER FTE
ADAMS STATE COLLEGE	11,078,793	2,445.60	4,530	11,032,178	2,445.60	4,511
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OREGON INSTIT TECHNOLOGY	17,470,965	2,427.29	7,198	16,818,319	2,427.29	6,929
AVERAGE			5,763			5,580
NORTHERN MONTANA COLLEGE	8,354,509	1,571.06	5,318	8,415,907	1,571.06	5,357
PERCENT OF PEERS			92%			96%

WESTERN MONTANA COLLEGE						
UNIVERSITY	TOTAL EXPENDITURES	STUDENT FTE	TOTAL EXP PER FTE	ADJUSTED TOTAL EXPENDITURES	STUDENT FTE	ADJUSTED EXP PER FTE
DICKINSON STATE	7,140,650	1,356.70	5,263	6,696,820	1,356.70	4,936
DAKOTA STATE	4,995,802	883.10	5,657	4,995,802	883.10	5,657
MAYVILLE STATE	4,325,261	770.44	5,614	4,123,889	770.44	5,353
VALLEY CITY	5,508,533	959.58	5,741	5,508,533	959.58	5,741
WESTERN NEW MEXICO	10,835,945	1,750	6,191	10,547,246	1,750.32	6,026
AVERAGE			5,693			5,542
WESTERN MONTANA COLLEGE	4,735,790	915.00	5,176	4,770,423	915.00	5,214
PERCENT OF PEERS			91%			94%

# MONTANA UNIVERSITY SYSTEM FY91 PEER DATA

TOTAL EXPENDITURES PER FTE (LESS RESEARCH AND PUBLIC SERVICE)

MONTANA STATE UNIVERSITY/UNIVERSITY OF MONTANA						
UNIVERSITY	TOTAL EXPENDITURES	STUDENT FTE	TOTAL EXP PER FTE	ADJUSTED TOTAL EXPENDITURES	STUDENT FTE	ADJUSTED EXP PER FTE
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AVERAGE			6,583			6,558
MONTANA STATE UNIVERSITY	49,305,770	9,670.92	5,098	49,656,243	9,670.92	5,135
UNIVERSITY OF MONTANA	41,474,671	8,857.23	4,683	41,801,285	8,857.23	4,719
PERCENT OF PEERS			77%			78%
MONTANA STATE UNIVERSITY			71%			72%
UNIVERSITY OF MONTANA						

EASTERN MONTANA COLLEGE						
UNIVERSITY	TOTAL EXPENDITURES	STUDENT FTE	TOTAL EXP PER FTE	ADJUSTED TOTAL EXPENDITURES	STUDENT FTE	ADJUSTED EXP PER FTE
MINOT STATE UNIVERSITY	13,079,814	2,457.39	5,323	13,079,814	2,457.39	5,323
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AVERAGE			5,304			5,181
EASTERN MONTANA COLLEGE	15,477,883	3,423.00	4,522	15,609,208	3,423.00	4,560
PERCENT OF PEERS			85%			88%





# MONTANA HIGHER EDUCATION SYSTEMS

## Office of Commissioner of Higher Education

2500 Broadway • PO Box 203101 • Helena, Montana 59620-3101 • (406) 444-6570 • FAX (406) 444-7729

November 4, 1992

Mr. Dick Raul  
Vice President for Business and Finance  
12 Old Main  
P. O. 5227 University Station  
North Dakota State University Main Campus  
Fargo, ND 58105

Dear Mr. Raul:

The Montana University System is conducting a study of the tuition and fees charged by institutions which are considered "peers" of Montana's higher educational institutions. North Dakota State University has been identified as a peer of both Montana State University and the University of Montana.

Specifically, we are interested in determining the comparability of fees which are assessed to students. For example, Montana institutions charge a mandatory fee to all students for the following fees.

<u>Fee Name</u>	<u>Fund Into Which Fee is Deposited</u>
Computer Fee	Plant Funds
Equipment Fee	Plant Funds
Building Fees	Plant Funds
Special Instructional Fees	Designated (Current-Unrestricted)

None of the above cited fees are included in the tuition and fees subject to legislative appropriation. I have enclosed an inventory of the Montana University System's tuition and fee schedule for your reference. You will note that the deposition of each fee (according to CUBA fund or subfund) is identified. If you have a similar book (or catalog) for your institution, please send me a copy.

If you would complete the enclosed survey (or route the survey to the appropriate person) I would sincerely appreciate it. I am hopeful to have the survey completed before our next regular Legislative Session convenes (January 4, 1993). Thank you very much for your efforts. If you have any questions, please call me at (406) 444-0320.

Sincerely,

A handwritten signature in cursive script that reads "Laurie O. Neils".

Laurie O. Neils  
Director of Budget and Accounting

**Institution:** NORTH DAKOTA STATE UNIVERSITY

	<u>Actual Collections(5)</u>	
	FY1991	FY1992

**Phone:**

M E M O R A N D U M

DATE: January 25, 1993

TO: Scott Seacat

FROM: Wayne Kedish  
Julie Quist

RE: Reply to questions regarding Montana college and university  
funding and tuition indexing 93L-11

Included below are the questions received and our responses based on discussions with personnel from: Montana Office of the Commissioner of Higher Education (CHE), peer institutions, and other state commissioner offices which use tuition indexing.

1. What is the basis in accounting literature for the establishment of the designated fund?

The Financial Accounting Standards Board (FASB) and the Governmental Accounting Standards Board (GASB) have ruled accounting and reporting standards applicable to colleges and universities are established by the following pronouncements:

- Audits of Colleges and Universities (the AICPA audit guide)
- AICPA Statement of Position 74-8, "Financial Accounting and Reporting by Colleges and Universities"
- Financial Accounting and Reporting Manual for Higher Education

The AICPA audit guide notes, "A clear distinction between the balances of funds which are externally restricted and those which are internally designated within each fund group should be maintained in the accounts and disclosed in the financial reports."

Section 215 of the Financial Accounting and Reporting Manual for Higher Education state, "For accounting purposes, internal designations would be accounted for in the current unrestricted funds group. Some institutions separately disclose internal designations in the financial statements as a subset of the current unrestricted funds; this practice is permissible, according to current accounting literature." Montana law allows for the use of the Designated Fund in section 17-2-102, MCA.

2. Do other schools in our "peer" group use the designated subfund and is it authorized by law?

The peer institutions, as a general rule, do not record a separate Designated Fund of the Current Unrestricted Funds. One of the 26 peer schools records a separate Designated Fund, but we found other peers record activity similar to Designated Fund activities in the Montana university system in two ways:

- A. Establishing a separate subfund under the Current Unrestricted Fund called "Current Unrestricted-Non-Appropriated" or "Auxiliary and Self Funded Activities" separated from a "Current Unrestricted-Appropriated" subfund. These subfunds include auxiliary enterprises and sales and services of education activities such as photo copying centers, telephone system, uses of gym facilities, and student activity and lab fees. The expenditures of non-appropriated fund sources are also recorded in this subfund. We noted one peer; however, included sales and services of education activities revenues in their "Current Unrestricted-State Appropriated Funding" subfund. These amounts are appropriated by the state. Expenditures related to these activities are not separately identified in the appropriated subfund.
- B. Within the Current Unrestricted Fund, the institution will indicate a revenue item called sales and services of education activities which includes recharge and other activities similar to designated activities. Expenditures of designated type activities are not separately identified in the financial statements. We understand from contact with these peers that these activities are not appropriated. In addition, the tuition or fees set aside for designated type activities are not separately identified even though they may not be appropriated.

We found that a Designated Fund is not authorized by state law at the peer colleges and universities. College personnel in one state using the "Current Unrestricted-Non-Appropriated" subfund said the subfund is required by state accounting policies but is not specifically required by state law.



3. Does the percentage of current funds revenue and expenditures in the designated subfund differ significantly between Montana schools and our "peer" schools?

We were not able to determine the percent of activity in the Designated Fund type compared to Current Unrestricted Funds because these activities are not separated in the peer schools.

4. Have any studies been done in Montana or other states to compare the extent of use of the designated subfund among states?

We are not aware of any studies performed by other states or in Montana that determines the extent of use of Designated Funds. We have determined that designated type activities occur in the peer schools, but we found the peers have not studied extent of use of these activities. According to the peer schools we contacted, this type of activity is also non-appropriated.

As part of requirements in House Bill 2, July 1992 Special Session of the Fifty Second Legislature, CHE is compiling information on student fees not included in the formula funding to determine if the fees should be included in the formula. CHE officials said this study includes fees charged for Designated Fund activities as compared to similar fees charged by peer schools. This study does not include recharge service activities such as central stores operations, postage, and copy centers that are also included in the Montana university system Designated Fund.

5. What studies have been done in Montana to ensure the cost basis for comparing funding levels with "peer" schools is actually comparable and complete?

In 1987, the Legislative Fiscal Analyst (LFA) performed a study of peer institutions. As part of that study the LFA determined if the peer colleges/universities were comparable to Montana schools in size and activities. In addition, this study determined what the costs of education were by concentrating on the Current Unrestricted Funds appropriated by the state. The purpose of the study was to establish a methodology for funding Montana schools.

The Commissioner of Higher Education's office (CHE) completed a similar study of peer schools in 1989. The results of the study were used in establishing university system budget proposals for the 1991 biennium.

Recently, CHE completed a similar study for fiscal year 1990-91. CHE included only the cost of education that is appropriated by the states legislatures. CHE adjusted the financial information for non-appropriated or activities Montana schools place under Designated Funds. Costs adjusted include public service and research program expenditures and indirect cost recoveries. CHE



officials said the results of this study were used in a tuition indexing proposal to the Board of Regents to adjust tuition fees to cost of education levels similar for peer schools. According to an official at CHE, the Board of Regents approved the tuition indexing proposal in theory.

We reviewed the fiscal year 1990-91 comparison study completed by CHE. CHE requested and obtained appropriated Current Unrestricted Fund expenditure data from each of the 26 peer institutions. We found CHE adjusted the Current Unrestricted Funds of the peers for costs in the public service and research programs. CHE also adjusted for other non-appropriated costs identified at these schools including indirect cost recoveries and costs associated with sales and services of education activities and auxiliary enterprises. We asked peer schools to identify the components each had included in its Current Unrestricted Fund appropriated base and whether specific items Montana places in the Designated Fund were or were not included in each peer's base. We found CHE had adjusted peer base data for most of the items; however, certain fees such as Montana's computer fee are in some peer schools appropriated funds but were not adjusted. CHE officials stated they were not able to identify and adjust all costs of a peer school to ensure appropriated expenditures in the Current Unrestricted Funds were exactly comparable to the Montana schools appropriated expenditures. CHE officials believe these differences would not materially misstate the costs per FTE calculations for comparison purposes. Based on our review of the CHE study and our contacts with the peer schools, it appears the differences are not material. It would not be feasible to determine all the specific amounts or types of expenditures making up the differences at the peer schools.

We also found costs of education may differ among the peers. For example, Montana schools charge students \$1 per credit per semester for computer use fees recorded in the plant funds. This amount is not included in the appropriation base in Montana. Other peer schools have similar charges that are included in their appropriated funds and are recorded in the Current Unrestricted Funds.

6. What options exist for allowing the executive and the legislature to ensure that the "peer" comparisons are complete and legitimate?

The study completed by CHE summarizes costs per student FTE. The cost of education is based on the total of all appropriations less public service and research program costs. This cost per FTE combines graduate and undergraduate FTE. To ensure comparisons are complete and legitimate, cost per FTE should be separated by graduate and undergraduate costs. A funding method based on combining undergraduate with graduate FTE causes the undergraduate students to subsidize the more expensive graduate programs. Table 1 gives an indication of this effect. The information in this table for Washington State University is from an education cost study

completed by the state of Washington in 1990. The study compiled the cost of education for colleges and universities in the state by discipline area and by level of student. The table shows you that undergraduate costs are less than half the cost of graduates within the same discipline area. Similar information is not available for Montana schools.

In addition, separating the cost of education by discipline such as education and business etc, would provide additional information on actual costs of offering a discipline. Again, Table 1 gives an indication of the disparity of costs between discipline areas. The disciplines chosen for the table are from high cost range and from low cost range discipline areas to show a range of disparity.

Table 1				
<u>Comparison of Education Costs By Discipline Area By Student Level</u>				
Washington State University				
Fiscal Year 1989-90				
Discipline Area	Social Sciences		Education	
	<u># of Students</u>	<u>Cost</u>	<u># of Students</u>	<u>Cost</u>
Undergraduate	2933	\$3,528	976	\$5,290
Masters	176	\$11,261	121	\$14,795
Doctoral/PhD	135	\$7,552	59	\$18,614
Total Cost Per Student FTE (All Disciplines and All Students)			15,910	\$6,373
Source: <u>1989-90 Education Cost Study</u> , Higher Education Coordinating Board, Olympia, Washington, November 1990				

Such an exhaustive study would require time to compile information and would require changes in accounting to track costs by discipline. Also, for comparison with peer colleges/universities, costs included in the comparison would need to be consistent among the peers. The peer schools would also need to provide cost by discipline and by undergraduate and graduate. It would require a cooperative effort on the part of peer schools and such information may not be available. State of Washington officials told us their cost of education study took a great amount of time and was costly, although they could not provide us with an amount.

Comparability among peer schools also depends on the role and scope of the schools, the mix of disciplines, and the mix of graduate and undergraduate students. If the role of the peer is in research, the cost of education is not comparable to a school where the role is in instruction. If a peer increases graduate programs, it will affect comparability of costs. We did not perform an analysis of whether the peers were comparable in role and scope or discipline and student mix.

7. Are there other states that use tuition indexing schemes to establish tuition rates for their students?

Yes. Based on information from CHE, the Western Interstate Commission for Higher Education (WICHE) issued a report in January 1991 which identified twelve states that use some form of tuition indexing. We talked with officials from Washington and Colorado, two states which currently tuition indexing in some manner. We also spoke with officials from Arizona, which previously used tuition indexing.

8. If so, do the cost of education amounts and funding percentages used in these states include fees which Montana students pay that are not deposited in the current unrestricted subfund?

Yes. As noted in the response to question 5 above, other peer institutions have charges similar to the computer fee which are included in the cost of education at these peer institutions. Additionally, as noted in the response to question 4 above, CHE is currently compiling information related to fees charged by peer institutions and where the fees are recorded.

Based on discussions with officials in other states which utilize tuition indexing we found the methods, percentages, and definitions of the cost of education vary. The state of Washington bases their tuition indexing on a cost study which is performed every four years. The cost study analyzes costs based on the level of programs the college offers, education level of the student, and the discipline area. The cost of education is defined in the state of Washington.

Colleges and universities in Colorado also use tuition indexing. However, the schools only index the tuition of full time resident undergraduate students. The index rate ranges between 25 percent and 30 percent of the cost of education and is set by each school within this established range. The cost of education is also defined in the state of Colorado.

In contrast, Arizona based tuition indexing on 20 percent of the cost of education, with the percentage increasing .5 percent a year until it reached 22.5 percent. The cost of education was not defined; however, and tuition increased more than the .5 percent as a result of schools not uniformly using the same cost of education (from school to school and from year to year). Arizona no longer uses tuition indexing.

9. In the tuition indexing proposal are existing fees which are not deposited in the current unrestricted subfund included in the calculations?

Based on our review of the Montana tuition indexing proposal, the fees which are deposited outside of the Current Unrestricted Fund will not be included in the calculation of the cost of education.

v/b2-lr.men





## **APPENDIX C**

### **EXAMPLE OF START UP COSTS FOR DISTANCE LEARNING**



## APPENDIX C

### EXAMPLE OF START UP COSTS FOR DISTANCE LEARNING

The following example assumes that the system, through one of the units, is offering one three credit hour class via T-1 video to four sites. The example also assumes that the class includes 40 resident students. Total revenue for the class would include tuition (based on a 15 credit hour average of \$47.83 per credit hour) and state appropriations (based on a per FTE average of \$150 per credit hour). The total income would be as follows:

<u>Tuition Income:</u>	40 students X 3 hours X \$47.83	=	\$5,740
<u>State Fund Income:</u>	40 students X 3 hrs. X \$150	=	<u>18,000</u>
<u>Total Income:</u>			\$23,740

Assuming direct instructional costs equal \$5,000 for the course and other overhead costs such as remote site management, technical operations, etc. equal \$2,500 per course, the total revenue available to pay transmission costs would equal \$16,240 (\$23,740 - \$7,500). Transmission costs for four sites would be as follows:

Course Contact Hours: (3 hours per week for 16 weeks)	=	48
Number of Sites:		<u>x 4</u>
Total Site Hours for the Course		192
Current Site Costs per Hour		<u>x 145</u>
Total Transmission Costs		\$27,840
Amount Available for Transmission Costs (from above)		<u>16,240</u>
Amount Needed from other Sources		\$11,600
Total Site Hours for the Course		<u>192</u>
Added Revenue Needed per Site Hour		\$60.42

In order to facilitate the use of telecommunications for distance learning and related applications, the usage rates should not be greater than an institution can afford based upon direct revenues. In the example above, a rate subsidy of about \$60 per hour would be required, or \$11,600 for the course. The actual mix of courses, students and sites will vary, but this algorithm can serve as a guide for estimating an up-front support level until volume and class size reach acceptable levels.











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